AMERICAN PHRENOLOGICAL JOURNAL AND LIFE ILLUSTRATED.

A Repository of Science, Literature, General Intelligence.

VOL. XXXVII. NO. 6.] NEW YORK, JUNE, 1863. [WHOLE NUMBER, 294.

Published by
FOWLER AND WELLS,
No. 308 Broadway, New York.
AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

	PAGE		PAGE
William Wheeler Hubbell	121	The City	136
The Spiritual Faculties	123	Relief for the Irish	138
Physiognomy	124	To Correspondents	139
The Color of the Eye	126	A New Volume	140
How to Train up a Child	127	Our New Terms	140
The Law of Inheritance	130	Literary Notices	141
The Brain the Organ of the Mind	131	Advertisements	143
Anatomy of the Eye	131	Stonewall Jackson	144
R. S. Macgowan	133	The Right Way	144
Tone—Music—Sound	134	Where to Find a Wife	144
To the Lakes	135	Delicious Pears	144
The Cerebellum	137	The Social Circle	144
		Our New Prospectus	144

PORTRAIT OF WILLIAM WHEELER HUBBELL.

WILLIAM WHEELER HUBBELL.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

The head of Mr. Hubbell is large, measuring 23 inches. His constitution was originally strong, very tenacious of life, and capable of great endurance. His vital powers have suffered, either from disease, the excessive activity of the brain, or probably from both causes.

The nervous system is highly developed and of superior quality. It is this which constitutes the superiority of the organization and gives vital and muscular vigor.

The form of the head and the outline of the character are from the paternal ancestry. His energy has been directed to the brain, until that organ has the control of life and health.

An obvious inference from the examination of a head so large, so full at the base, over the eyebrows, and so high in the crown, is, that the man is practical and will be successful.

Combativeness, Destructiveness, Firmness, Self-Esteem, and Concentrativeness are large, and give him great power to direct and concentrate his efforts in any direction, and with electrical rapidity. For the time being, he has but a single idea of importance; whatever of conflicting opinions his thoughts may encounter are instantly neutralized or transmuted.

His Cautiousness is large, and he is as remarkable for his anticipation of difficulties as for his ability to remove them.

His intellectual tendencies are strongly marked. He has talent for, and may excel in, any branch of science. In mechanics and in chemistry he has the greatest power and finds the most enjoyment. His large Constructiveness turns his intellect toward mechanical improvement.

He has a vivid imagination, and forms clear and distinct images of his inventions in his mind

before he will attempt to construct them, and is perfectly confident of the success of inventions before trial. His confidence is based upon intellectual conviction, and when that is wanting he will be satisfied only with practical demonstration. This will be the case when chemical and philosophical problems are involved. He has great analytical talent.

In debate he will display acumen, courage, and a thorough acquaintance with his subject. He will speak like a man who knows what he says, and who expects to be believed. Causality is sufficiently large to hold the mind to all the known motives affecting the subject under investigation. It does not incline to abstract speculations and unfounded theories.

His literary talents, though excellent, are subservient to his other faculties. In his leisure moments only will the ideal features of his mind be manifested; but on such occasions the tenderness of his mood will be in striking contrast with his practical character. Large Cautiousness and Acquisitiveness render him prudent and zealous in business transactions. He has more energy and calculation than speculative enterprise. He is exacting, demands prompt payments, and will neglect nothing to render success certain.

Veneration is his largest religious organ. Spirituality and Hope are small. His mind is conservative, sometimes, to a fault. He has no radical tendencies calculated to overthrow the existing condition of things. His mind would experience relief, and work with less exhaustion, if the confiding elements of his religious and moral nature were more fully developed. Self-reliance and decision, a firm conviction of the importance of his own cause, and the resolution to maintain the advantages he has gained, enable him to exert great influence. He is not lavish of his means. He has large Benevolence; is able to identify himself with the cause of another.

His argumentative talent is excellent, and in the power to apply facts and in criticism he has few superiors. Though his Language is fully developed, he is not loquacious; selects the appropriate word, and talks only to convey his thoughts. Suavity is not sufficiently large to represent his sympathy to advantage.

BIOGRAPHY.

WILLIAM WHEELER HUBBELL was born in Philadelphia, March 4, 1821, and obtained an English and classical education in that city. At the early age of thirteen he showed a strong taste for scientific pursuits. When a small boy, with his bow and arrow, he would arm the head of the arrow with a projecting nail, and placing thereon a percussion cap, fire and explode it against an iron plate at a distance; and here practically began his study of those principles which have resulted in the invention by him of the most powerful war projectiles of modern times—his Patent Spherical Thunderbolt Shell and Fuse, and the elongated shell with his Patent Cylinder Percussion Exploder. How often the seeds of thought sown in playful boyhood ripen into full fruit in manhood!

To recur. On one occasion William was found by his parents to be very busily engaged in some work in the attic, and his father paying him a visit, inquired, "What are you doing, William?" "Why, father, I am trying to make a wheel run all the time. You see this bent mouth of your old bassoon—when I put it in this glass and start the water, it all runs up and out; now, if I contract the mouth and fix a wheel there, may-be the weight and pressure on the cone inside will make it run out a little above the other water and turn the wheel, then the water can run back through a tube at the bottom and keep going all the time. Here is another plan, on this wheel: these quills with shot in them fall over on these pins through the end, so as to incline and let the shot run out farther from the center and at the top of the wheel, so as to overbalance the other side, and it runs on glass." His father declared that the least thing, to tip over one quill, would start it, and it run about half way around until it found its balance and then would stop. William persevered, and his father in vain tried to convince him that it would be a perpetual motion, and could not be done; but he tried both water and weights, and satisfied himself by actual experiment that the perpetual motion could not be realized. Though seizing on the attraction of magnetism instead of gravitation, he afterward invented the Solar Magnet and its Engine, illustrated in the *Scientific American*, and *London Journal*, and *Franklin Institute Journal* of 1850, showing that his investigations as to attraction resulted in a system of magnetism resembling as closely as possible the received theory of the solar system.

When he touches a subject, either scientific or legal, he exhausts it with investigation, and never fails in sustaining his conclusions. Our library contains arguments, preparation of cases, and opinions, showing his most thorough labors and success in some of the most important causes. He enjoys the confidence of the railroad companies of the Eastern and Middle as well as the Southern States, in matters involving scientific and legal investigation; and his late opinion with others on behalf of the line between New York and Washington, on the constitutional powers of Congress to construct railroads, and the rights of the States over the soil, shows similar powers of arriving at conclusions, and discriminating on purely constitutional or legal questions that have been made manifest on scientific subjects.

The originality of thought and inventive capacity of Mr. Hubbell are largely attested by the Records of the Patent Office, where whole boxes are appropriated to the files of his patent papers. He is the patentee or inventor of some of the most powerful enginery of war of modern times, and this fact is attested by the official issue to him of the Letters Patent of the United States, as the first and original inventor against all the world. He, in 1844, patented the first adjustable breech-loading gun to compensate for expansion in heating by a screw and sectional breech, which the British Government ordered of him, had made, paid for, and sent to England in 1845; upon which the Armstrong gun is an improvement in the shape of the elements, "the compensating screw, and gated or sectional breech," and on which, in turn, Hubbell has improved and patented, on a decision in his favor by the United States Patent Office. He invented and made the first cylindro-percussion exploders in 1847, for shells, and the original patent for it, with all its modern peculiarities of an inelastic base, magazine striker with air spaces, safety holder, and front percussion with rear firing vents to give time for the shell to penetrate, was granted by the Government to him in January, 1860, and afterward and now extensively used in rifled projectiles.

It would be difficult to enumerate all the enginery of war he has patented and proposed. The strongest gun ever proposed to the Navy Department was on a plan invented and presented by Hubbell, with drawing and specifications and a proposal to construct it at the Washington Navy Yard. Its great cost, $100,000 for the first gun is its only objection. It is of combined gun metal and wrought iron, fifteen inches in the bore, to burn one hundred pounds of powder for a charge, and drive its projectile through any iron-clad that could be built to float. The gun may yet be made; its construction is a secret. Twenty such guns could destroy any vessels that might attempt to enter New York harbor.

His great invention of the war is his famous Patent Thunderbolt Shell and Fuse (the regular service Explosive Shell and Fuse), of which about 400,000 have been made in the navy and sea-coast service, and have been the leading projectile fired from the large smooth-bored shell guns, in capturing all the works along the coast. The rebels fear these shells more than any other weapon of the war. The Petrel, Forts Hatteras, Clark, Walker, and Beauregard, Pensacola, Island No. 10, Pittsburg Landing, Malvern Hills, and numerous other places have attested their power. And the Committee on Naval Affairs of the late Congress reported a joint resolution appropriating $100,000 to purchase the Patent Rights of Mr. Hubbell on such judgment of value as the Court of Claims might render; it was not reached on the calendar for want of time. The success of this Thunderbolt Shell was first demonstrated by Mr. Hubbell, below the Navy Yard, Philadelphia, in April 1842, and twenty-one years of time and experiments have proved it to be founded on the most correct principles. In the earliest and dark hours of the rebellion the Thunderbolt Shell along the coast carried victory everywhere. Some of them are eight, nine, ten, and eleven inches, and fifteen inches in diameter, of great weight and terrible explosive power.

Mr. Hubbell has offered to introduce rifle shells and fuses of similar powers into the field, fully adapted to rifle artillery field service, if the Government will pay the expense of the shells; or pay him for his Patent Rights used, and he will introduce them at his own expense, on which the Ordnance Department reports, and the Secretary of War approves: "This Department sees no objection to the trial of Mr. Hubbell's fuse in the field when a suitable opportunity offers for so doing, and would recommend that they be so tried. The regulations of the War Department require that all new inventions be tried at the expense of the inventor" (May 22, 1862). And it is possible, therefore, that the field artillery will be supplied with these shells in a short time, and be greatly increased in power by the application of the principles of the Thunderbolt Shell as proposed by Mr. Hubbell. He first exhibited them successfully at the Washington Arsenal. Their expensiveness is the principal difficulty in introducing them into the field; but as the artillery most effective is generally most economical, as experience proves, the first cost is not objectionable in summing up everything.

It is not a little astonishing to note how many hereditary influences often go to make up the character of an American citizen, composed of different nationalities, each possessing distinct and marked characteristics, and this is peculiarly the case with Mr. Hubbell. He is descended from the most ancient and most diverse families and sects both in this country and in Europe, a part of the most renowned in war, and a part of the most adherent to peace. To use his own expression, he is an il-

lustration of the "natural necessity of Union principles in the American citizen."

His father, Truman Mallory Hubbell, is a native of Massachusetts, and a son of Silas Hubbell of Connecticut, who fought in the Revolution at Bunker Hill, and afterward under Washington, and spent his whole fortune in the purchase of blankets and shoes for his comrades in arms. He was a whole-souled Revolutionary patriot. The Hubbell's (pronounced Hubbald in Wales) emigrated and settled in Connecticut in 1649. The family held the seat of Ipsley, at Stoke, in Surrey, before the Norman Conquest. The grandmother was a sister of William French, famous in our early Indian wars, and was a native of France. On the maternal side, the grandparents were Friends of the William Penn colony; the paternal, of the Flowers of England, and the maternal, of the ancient, renowned, and heroic Grahams of Scotland, who as early as A.D. 404 commanded the army of Scotland, breached the mighty walls which the Emperor Severus had erected between the Forth and Clyde, was regent, intermarried with the Stuarts, of the royal family, and in the long wars fought the English most desperately by the side of Bruce and Wallace. The accession of the Scottish Stuart line, and the establishment of the "United" Kingdom or "Union" terminating the difficulty between England and Scotland, Henry Hale Graham, the great-grandfather, espoused the Friends' religion, and settled near Chester, Penn., with the Penns. For more than fourteen hundred years his ancestors have been renowned in arms, and while he in person retains all the physical appearance of the Anglo-Saxon, with blue eyes, fair complexion, and light hair, he also instinctively seems to retain the taste for the science of war, or its enginery on the one side, and desire to promote peace when practicable on the other.

Mr. Hubbell's scientific and professional abilities were highly appreciated at the South, where he had been counsel in important cases. In 1845 he was admitted to the bar, having studied law with John W. Ashmead, Esq., now of New York. In 1848 he married a lady of South Carolina, of Huguenot descent, and has four sons and two daughters.

THE SPIRITUAL FACULTIES.

BY J. H.

All intellectual processes of reasoning, as we have heretofore said, properly begin in the perceptive faculties. That this is the true order, is so clearly and conclusively proved by material evidence, that it admits of no controversy. We recur to the point merely in order to make clear what we are going to say on another topic. We desire that the firm basis of established physiological and phrenological facts, on which our teachings rest, should be kept prominently before the reader's mind.

In the first place, then, whether in infancy or in mature life, we *individualize*—take cognizance of each thing by itself; then we observe its form and location, and find words to name and describe it in reference to its shape, place, size, weight, color, order, etc.—that is, this is the natural physiological and phrenological order of perception, as is proved anatomically by the arrangement and peculiar interlinking of the organs of the perceptive faculties in the brain; and it is when they act in this natural order that the greatest intellectual power is manifested, as in the case of Daniel Webster, whose mental operations were in the true order, in this respect, and therefore effective. In a very large class of individuals, however, this natural order is, in various ways, subverted. We state here the general law. Having found things, and become acquainted with their material qualities and material relations, by means of the perceptive faculties, we desire to compare the individual objects, thus proven to exist, with each other, and to learn the reason why things are as they are—in other words, we wish to find out the *principles* which underlie the observed facts; and here Eventuality (which seems to combine with the organs both below and above it) and the conceptive faculties—Comparison and Causality—are brought into action. In these processes, all correct and legitimate reasoning must begin and end. By their aid Dr. Gall discovered the organs of the mind in the brain, and established, with Dr. Spurzheim's assistance, on the sure basis of anatomy and physiology, the grand science of Phrenology, constituting, in our view, the greatest event of the last century. Here is where Dr. Spurzheim and phrenologists generally have mistaken the mental process by means of which Dr. Gall discovered the organ of Language in his schoolmates. He observed and individualized, it is true, but he also *compared*. The discovery was the direct result of a *conceptive* process, and not merely a *perceptive* one. These great men accomplished the important work appointed for them to do; but it was not for them to bring Phrenology to perfection. It has been left for others to advance it beyond the point where they left it. They placed the science firmly on its material basis of anatomical and physiological demonstration, but failed to see clearly its higher spiritual bearings. They subordinated everything to the intellect, as most of their followers have done up to the present day. The true nature and functions of the spiritual sentiments have not heretofore been well understood, nor has the supremacy properly belonging to them, by God's appointment, been generally conceded. In what we are about to say, it is our purpose to place this branch of the subject in its true light—to lay down the law of spiritual life and establish the fact of the preordained subordination of men to God, through the predominance of the supernaturally awakened spiritual group of faculties.

The true order of spiritual relations in man was revealed by Christ at his manifestation on the earth. He had long been looked for as a superior personage who was to give to man both spiritual and physical direction. He came, and was not understood. He is among us now, and is not understood or generally received. Phrenology, rightly comprehended, will enable the world to understand him, and show men how they may be fitted to receive him into their hearts, be guided by his spirit, and be prepared to manifest the same power that he manifested, and promised to bestow on all his true followers.

The location of the spiritual organs and the peculiar foldings of the brain, as shown in previous articles, furnish anatomical proof that the design of God, in the creation of man, was that he should be governed and guided by some power outside of himself, acting through organs which otherwise would seem to have no adequate function. This guiding and governing power is the Holy Ghost, which giveth the grace to see in Christ "the way, the truth, and the life."

The functions of the spiritual sentiments, and their order of development and operation, are just as susceptible of physiological and phrenological demonstration as those of the intellectual faculties The proofs of this have already, in part at least, been pointed out in previous numbers.

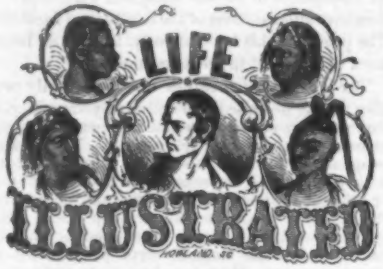
The intellectual faculties are hereditarily predisposed to be called into activity by our material surroundings and the mental influences brought to bear upon us by our fellow-men. The animal propensities are also born into direct relations with the world of the senses, and need no power or influence outside of themselves and their material relations to arouse and develop them. The spiritual sentiments, on the other hand, are hereditarily or by the natural birth predisposed to remain dormant. Here is an important distinction which must not be lost sight of, and which we can not too often reiterate, because on this circumstance rests the necessity for the manifestation of the power of the Holy Spirit, as well as for the existence of the church of Christ and its ordinances.

The functions and powers of our spiritual nature, we have said, are not generally understood. One of the most remarkable and significant of these is the power of becoming spiritually *en rapport*—that is, in direct communication with all substances and all things that exist or are known among men, ourselves as well as the persons and objects around us, so as to know by *feeling* and *impression*, and not by seeing their nature and conditions. Through the legitimate or normal activity of the truly awakened spiritual faculties we become conscious of everything that is going on in our own bodies, within as well as without; and it must be understood that we are *not* speaking of the clairvoyance produced by animal magnetism or of any other abnormal phenomena.

The perceptive faculties discover the external of things—gain a knowledge of surfaces merely. Causality and Comparison find out the principles which lie behind the things thus discovered and superficially known. The spiritual faculties penetrate, as it were, the substance of things and know what exists interiorily, so far as our organization and capacities enable us to entertain the knowledge and the interests of man may be subserved by our knowing. In their normal and divinely awakened condition, and with the cultivation they ought to receive, and which they will receive in the true Christian order, Christ has promised that the proper action of the spiritual faculties shall enable us to manifest a power even greater than he manifested while on the earth. "Verily, verily I say unto you," he says, "he that believeth on me, the works that I do shall he do also, and greater works than these shall he do." But "the world, the flesh, and the devil" have heretofore always perverted the true order of things, and these faculties, abnormally exercised, have led men into error and impiety, instead of conducting them, as they were ordained to do, into a true faith and a holy life, full of all might, majesty, and dominion, and abounding in all good works.

Therefore Christ, ordained for the work from the foundation of the world, and prophetically and historically proven to be the only Messiah, came to manifest the power of God unto man, and to reveal the direct law of the Holy Spirit in its operation upon the spiritual faculties in man; so that, by knowing the true nature, condition, and office of these faculties, and consciously possessing ourselves of the requisite state of mind and heart, we may receive the grace we need, and be invested with the promised gifts of power. We have but to submit our will to God's will, yield our spirits to his guidance, and give our hearts unconditionally and unreservedly to him, in order to pass from the natural to the spiritual state which constitutes the change of heart termed being born again.

Phrenology here becomes the handmaid of the Gospel to aid in reinstating man, through the operation of the Holy Spirit, in that high estate from which, through Adam's sin, he has so sadly fallen.



"Signs of Character."

PHYSIOGNOMY.

THE EYE.

"THE eyes," Emerson says, "speak all languages. They wait for no introduction; they are no Englishmen; ask no leave of age or rank; they respect neither poverty nor riches, neither learning nor power, nor virtue, nor sex, but intrude and come again, and go through and through you in a moment of time. * * * * * * The eyes of men converse as much as their tongues, with the advantage that the ocular dialect needs no dictionary, but is understood all the world over. When the eyes say one thing and the tongue another, a practiced man relies on the language of the first. If a man be off his center, his eyes show it. You can read in the eyes of your companion whether your argument hits him, though his tongue will not confess it. There is a look by which a man shows he is going to say a good thing, and a look when he has said it. Vain and forgotten are all the fine offers and offices of hospitality if there be no holiday in the eye. How many furtive inclinations are avowed by the eye though dissembled by the lips! * * * * * * Some eyes are aggressive and devouring, seem to call out the police, take all too much notice and require crowded Broadways and the security of millions to protect individuals against them. * * There are asking eyes, asserting eyes, prowling

FIG. 1.—NELL GWYNNE.

eyes, and eyes full of fate—some of good and some of sinister omen. The alleged power to charm down insanity, or ferocity in beasts, is a power behind the eye. It must be a victory achieved in the will before it can be signified in the eye. It is certain that each man carries in his eye the exact indication of his rank in the immense scale of men, and we are always learning to read it. * * * The reason why men do not obey us is because they see the mud at the bottom of our eye."

All this is very fine, and most of it very true;

FIG. 2.—GEO. CANNING.

but how much more pointed and effective might the philosophic dreamer of Concord have made his oracular sayings, had he understood the true physiognomy of the eye—known why it languishes with love, glows with passion, gleams with hate, sparkles with mirth, flashes with anger, melts with pity, and lights up with joy, or is darkened in sorrow; why prayerfulness turns it upward and humility bends it toward the earth; what expression commands, what forbids, what reproves (giving "the chastisement of the eye"), what commends with "an approving look," and so on.

The eye is a wonderfully expressive feature to the common observer, and doubly so to the physiognomist. A volume, and an interesting and valuable one, might be written on this feature alone. All that we can promise to do in a single article is to give our readers something that will serve as an introduction to its study. The subject can not fail to prove attractive in all its aspects and to every reader.

The first thing that strikes us in looking at the eye is its size. In this, it differs greatly in different individuals as the foregoing portraits (figs. 1 and 2) show. Large eyes have always been admired, especially in woman, and may be considered essential to the highest order of beauty, in almost every description of which, from Helen

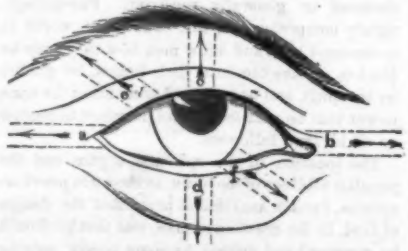


FIG. 3.—EYE—MUSCULAR ACTION.

of Troy to Lola Montes, they hold a prominent place. We read of "large spiritual eyes," and

Eyes loving large,

and of "little sparkling eyes," to which the epithets "spiritual" and "loving" are never applied.

Physiognomically, the size of the eye indicates *Activity*, considered as an attribute of the mind, appertaining to all its faculties, but seeming to be more closely connected with the social and religious feelings than with the others.

Persons with large eyes give us the impression of being "wide awake" and ready for action,

FIG. 4.—SIR SAMUEL ROMILY.

while small-eyed people have more generally "a sleepy look" and a sluggish temperament or habit of body. Dr. Redfield observes, that "persons with large eyes have very lively emotions, think very rapidly and speak fast, unless there be a predominance of the phlegmatic temperament. Of persons with small eyes the reverse is true. The former are quick and spontaneous in their feelings and in the expression of them, and are therefore simple like the Scotch, Swiss, and all who inhabit mountainous regions. The latter are slow and calculating, and therefore artful, like the Gipsies, a people who generally inhabit level countries. There is a connection between activity and the ascending and descending acclivities, a fact which we evince in running up and down stairs, and which an active horse exhibits when he comes to a hill; and hence the Scotch Highlanders, as well as the sheep, goat, chamois, etc., have large eyes, and very great activity. The rabbit, the squirrel, the cat, the mouse, the gazelle* are instances of the sign of activity in a very superior degree; while the hog, the rhinoceros, the elephant, and the sloth are instances of small eyes and very little activity.

FIG. 5.—THE PRAYERFUL MAN.

The color of the eye has been touched upon in another article, to which the reader is referred. At another time, perhaps we may recur to the subject of color, and speak more specifically of its

*The Arab expresses his idea of a woman's beauty by saying "she has the eye of a gazelle."

physiognomical indications. In the present article we must confine ourselves to the muscles of the eye and its appendages, as described in the article on the anatomy of the eye, which will follow this. It will be seen that there are six muscles that give motion to the globe of the eye. We will commence with the faculties which have their signs in them. The first we shall name are

Love of Fiction, indicated by the straight muscle (*externus rectus*) which draws the eyeball into the outer angle toward the ear (fig 3, *a*), and

Love of Facts or Collating, the sign of which is found in the antagonistic muscle (*rectus internus*) which draws the eye into the inner angle

Fig. 6.—Prayerfulness.

toward the nose (fig. 3, *b*). These signs necessarily act together and ought exactly to balance each other, one eye turning outward while the other turns inward (fig. 4), as fiction is founded on facts, and facts are linked together and illustrated by fiction; but sometimes the love of fiction is greater than the love of facts, in which case the eyes squint outward, and there is a tendency to undue license of the imagination, and, especially if Justice or Consciousness be not fully developed, an inclination toward lying. If the sign of Love of Facts be the greater, the eye will squint inward or toward the nose. Excess in this direction leads, if not strongly restrained, to stealing, and especially to plagiarism or literary theft. Squinting is not necessarily connected, however, with either lying or stealing, as it may come from a deficiency of one of the faculties under consideration, and not an excess of the other. The counteracting influences of Truthfulness and Justice must also be taken into the account.

Love of Fiction or story-telling delights in parables, allegories, fables, etc. Love of Facts collates, makes compilations, and stores up scraps

Fig. 7.—Wm. Ettey.

of knowledge for future use. The signs of these faculties are found largely developed in novelists, compilers, and collectors of natural history specimens, works of art, and relics of the past, in whom they operate in connection with Ideality and Acquisitiveness.

Acting at right angles with the two muscles just mentioned are two others, the one (*rectus superior*) drawing the globe of the eye directly upward, and the other (*rectus inferior*) drawing it directly downward. The first indicates the faculty of

Prayerfulness (fig. 3, *c*), as shown in the accompanying portrait (fig. 5) and in the outline drawing of the eye (fig. 6).

When wrapt in devotional feelings, when all outward impressions are unheeded, the eyes are raised by an action neither taught nor acquired. Instinctively we bow the body and raise the eyes in prayer, as though the visible

Fig. 8.—Humility.

heavens were the seat of God. In the language of the poet—

> Prayer is the upward glancing of the eye,
> When none but God is near.

Although the savage does not always distinguish God from the heavens above him, this direction of the eye would appear to be the source of the universal belief that the Supreme Being has his throne above. The idolatrous negro, in praying for rice and yams, or that he may be active and swift, lifts his eyes to the canopy of the sky.*

So, in intercourse with God, though we are taught that our globe is continually revolving, and though religion inculcates that God is everywhere, yet, under the influence of this position of the eye, which is no doubt designed for a purpose, we seek him on high. "I will lift up my eyes to the hills," the Psalmist says, "from whence cometh my help."

Prayerfulness has its human as well as its divine aspects. We look up to those above us and we ask favors of our fellow-men, as well as offer petitions at the throne of grace, and with asking comes naturally the upturning of the eyes, unless Humility be more strongly developed or more

Fig. 9.—Bishop Bedell.

active than Prayerfulness, so as to prevent the latter from manifesting itself in its natural way.

The second perpendicular straight muscle (*rectus inferior*, fig. 3, *d*) indicates the faculty of

Humility (fig. 7), the natural language of which

* Barbot's "Description of Guinea."

is the drawing of the eyeball directly downward as represented in figures of the Madonna, and in our illustrative outline (fig. 8). The faculties of Prayerfulness and Humility are mutual in action. We should be first humble, then prayerful. Christ says: "Verily, verily I say unto you, whosoever shall not receive the kingdom of God *as a little child*, shall not enter therein."

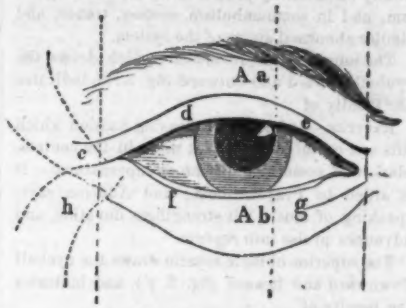


Fig. 10.—Truthfulness, etc.

But some persons are prayerful without being humble, and, in their petitions to the Infinite One, *demand* rather than entreat, and sometimes almost assume the tone of *command*. This is not the true Christian frame of mind.

In the time of St. Philip of Neri there appeared, in a convent near Rome, a nun who laid claims to certain rare gifts of inspiration and prophecy. The Pope was somewhat troubled by these new claims, and consulted St. Philip, who undertook to visit the nun and ascertain her real character. He mounted a mule and hastened through the mud and mire to the convent. He told the abbess the wishes of his Holiness, and begged her to summon the nun at once. She was sent for and soon came into the room, when St. Philip stretched out his leg, all bespattered with mud, and desired her to draw off his boots! The young nun, who had become the object of much attention and respect, drew back with anger and refused the office. St. Philip ran out, mounted his mule, and returned instantly to the Pope. "Give

Fig. 11.—John Smeaton.

yourself no uneasiness, Holy Father," he said, "here is no miracle, for here is no humility."

The four muscles concerned in the movements and forming the signs of character just described, are all called straight muscles or *recti*. They act voluntarily—that is, in obedience to the will—

and, by combining their action, move the eye in every direction required by vision. When these straight muscles cease to act, whether from weariness or exhaustion, or from some abnormal condition of the system, the two other muscles, called oblique, are brought into operation. They are involuntary in their action, and govern the movements of the eyes in sleep, in that condition of bodily insensibility produced by animal magnetism, and in somnambulism, ecstasy, trance, and similar abnormal states of the system.

The inferior oblique muscle, which draws the eyeball upward and outward (fig. 3., *e*), indicates the faculty of

RAPTURE—a violence of pleasing passion which lifts one out of himself, as it were, in the contemplation of something divine or supernatural. It is allied to Prayerfulness; and Addison says, speaking of music, "it strengthens devotion and advances praise into *rapture*."

The superior oblique muscle draws the eyeball downward and inward (fig. 3, *f*), and indicates the faculty of

WONDER—the emotion excited by whatever is novel, strange, or surprising. It is very prominent in children and more so in ignorant than in educated people.

"Oh! mother," exclaims a little girl, running into the house with "wonder in her eyes," "oh! mother, there are *twenty* cats out in the barn!"

"Oh! no," the mother says, "I don't think there *can* be *twenty* cats in the barn."

"Well, there are *ten*, then."

"No, my dear, I don't think there can be so *many*."

"Well, at any rate, there are *our* cat and *another*."

The little girl did not mean to tell a lie, but she saw with the eye under the influence of the oblique muscles, and through the organ of Wonder, the voluntary muscles not having full control.

"Wonder," Johnson says, "is the effect of *novelty upon ignorance*. We cease to wonder at what we understand." To the fool, everything is a miracle.

Wonder, when rightly directed, however, leads to knowledge. We begin in wonder, saying, "I wonder *what* it is!" or, "what can be the *cause* of that?" and, proceeding to *investigate*, end in *discovery*; but if we are content to merely wonder, we remain in ignorance.

The eyelids are generally spoken of as appendages of the eye. Their basis is the circular muscle (*orbicularis palpebrarum*) which surrounds the eye. [See "Anatomy of the Eye," fig. 7, *B*]. This muscle, causing when strong a degree of fullness, and sometimes wrinkles and foldings around the eye, indicates the faculty of

TRUTHFULNESS (fig. 10, *A*, *A*) as shown in the foregoing portrait of Bishop Bedell (fig. 9). Truthfulness has three forms of manifestation, each of which has its specific sign. They may be designated as—

1. Historical Truthfulness;
2. Mathematical Truthfulness; and
3. Personal Truthfulness or Probity.

HISTORICAL TRUTHFULNESS or Accuracy is indicated by the wrinkles and foldings of the upper eyelid (fig. 8, *e*). It gives the love of strict correctness in details and the ability to remember particular facts and little circumstances, and to describe things and narrate events with minute fidelity. It fits a person for the study of history, and, with other essential qualifications, for writing it. Naturalists, in whom strict correctness in details is very essential, generally develop this faculty largely, and the sign is large in their faces. See the portrait of Blumenbach in our last number as an example.

MATHEMATICAL TRUTHFULNESS or Accuracy has its sign below the eye, and, when the faculty is large, causes a fullness, amounting sometimes to a baggy appearance, under the lower eyelid (fig. 6, *c*). This muscular fullness must not be confounded with the prominence of the *malar* or cheek-bone, below the orbit of the eye, which has a very different signification. The faculty of Mathematical Accuracy gives the love of correctness in figures and in the details of mathematical science generally. Bookkeepers and accountants should have it large, and they necessarily develop it by continual exercise. It does not give mathematical talent, but is essential to success in the practical application of any branch of mathematical science. The portrait of Smeaton, the distinguished civil engineer and builder of the Eddystone lighthouse (fig. 11), shows a prominent development of this sign, and be manifested in a high degree the faculty which it represents.

PERSONAL TRUTHFULNESS or Probity is indicated by curved wrinkles running outward and upward from the outer angle of the eye (fig. 10, *c*). Persons with this sign large are noted for always keeping their promises, and for doing as they agree to do. As probity comes from the Latin *proba*, to prove, so these persons prove their personal truthfulness by their actions. They are apt to be slow to make promises, especially if Cautiousness be large, but when made, you may trust them.

In the width or perpendicular length of the eyelids we find four physiognomical signs. The first two (for they may be considered in pairs) are

CONFESSION AND PENITENCE.—Their sign is the perpendicular length or drooping of the upper eyelid (fig. 7). The drooping of about two-thirds of it from the outer angle (fig. 10, *d*) indicates the disposition to confess one's faults to parents, friends, seniors, the priest, or to God. The sign of this faculty is generally large in connection with that of Prayerfulness (fig. 6, *b*). The drooping of the other third of the eyelid, next the nose fig. 10, *e*), indicates the disposition to repent, to feel sorry for our sins and to do "works meet for repentance." It is connected with Humility as Confession is with Prayerfulness (fig. 8, *b*). The weight of our sin bows our spirits and lowers the eyes—makes us humble. Both these signs may be seen large in devotees of the Roman Church.

Opposite Confession, in the width of the outer two-thirds of the lower eyelid (fig 10, *f*), is the sign of

APOLOGY, which gives the disposition to excuse one's self, or enter a plea in extenuation of a wrong, or of what may, without explanation, appear to be a wrong. It is closely allied to

SELF-JUSTIFICATION, or the disposition to defend our conduct by giving what we claim to be good reasons for it—by showing that it is not wrong, though it may appear so to another—which has its sign in the inner third of the eyelid, opposite Repentance (fig. 10, *g*). Practically these two signs may be, without impropriety, considered as one, since the definitions which the lexicographers give of Apology embrace both extenuation and justification.

MIRTHFULNESS, though belonging to a different group of faculties, may be mentioned here, as it has its sign in the wrinkles which curve downward from the outer angle of the eye (fig. 10, *h*) opposite Probity. In some cases these lines extend downward till they meet those which (caused by the action of the same faculty) curve upward from the corner of the mouth.

The eye is unexhausted and inexhaustible, but we must *close* it for the present.

THE NOSE.—See our next number, which will commence a new volume.

THE COLOR OF THE EYE,

AS AFFECTED BY CLIMATE AND RACE.

THE *color* of the eye signifies several conditions, and is in accordance with situation, race, temperament, etc. We never meet with gray-eyed North American Indians, nor with blue eyed negroes, unless mixed, or amalgamated with other races; while the Teutons, Saxons, Celts, and other Caucasians are more or less mixed, and hence the varieties of color in their eyes.

In tropical countries the tendency is to become dark like the natives. For example, when blue-eyed New Englanders settle in Alabama or Louisiana, they become the parents of dark-eyed children. The first one born to them will be a shade darker than the parents, the second still darker, and so on, till the sixth, eighth, or tenth, whose eyes will be *black*, and their grandchildren will all have black eyes. But should they—the grandchildren—return to the northern home of their ancestors, settle, and become parents, their descendants will, in time, recover the blue or light eyes of their ancestry. The eye is the first to show the effects of the change, and the hair the next; then the skin becomes a shade darker—if in the tropics—or lighter, if in the temperate zones.

The same may be seen in many fair-haired and light-eyed English, Scotch, and Irish families, who, having emigrated to the East Indies, and remaining there ten, fifteen, or twenty years, return to their native northern islands, bring with them broods of black-eyed and dark-haired children, who, settling in the homes of their fathers, become, in time, the parents of children with fair complexions. These, then, are the changes brought about by situation and climate, which modifies our temperaments, our modes of thought, actions, and our lives.

Light eyes are more susceptible, more easily impressed than dark eyes; as the light-eyed races have attained a higher degree of civilization than the dark races. There are more poets with light eyes than with dark; and we would have it understood that the eye governs the complexion. If the eye be dark, so is the complexion; if light, so is skin, hair, etc.; at least this is the rule, and there will be found but few exceptions. The dark eye indicates vigor of body, as the light eye indicates susceptibility and impressibility of mind. The dark eye is strong; the light eye, more

delicate. The dark is more enduring; the light, more changeable. The dark resists, the light attracts; the dark are more piercing, the light more inviting. But, we repeat, the color of the eye is national, and depends on race, location, etc. But the *shape* of the eye more particularly indicates character, as shown in another article.

HOW TO TRAIN UP A CHILD.

EXRACTS FROM A SERMON

BY HENRY WARD BEECHER.

"Train up a child in the way he should go: and when he is old, he will not depart from it."—PROV. xxii. 6.

A CHILD may be *taught* the way in which he should go, and fail. It is scarcely possible that a child should be taught, until knowledge is changed into habit of conduct, and then fail. The peculiar difficulty of this command, however, does not lie in the misconception of the duty, so much as in an ignorance of how to perform it. It is *the way he should go*, that is difficult. If parents knew exactly what that way was in which their children should go, they would feel that half of their burden was taken off; but it is a common expression that they do not know what to do with them. They do not understand the conditions of training, the aims of it, and the material.

THE LOVING HOUSEHOLD.

Nothing can be more beautiful than a loving household. There is no garden, there is no beauty in the heaven, nor upon the earth in the fairest days of the most favored seasons, that for one moment can compare with the beauty of a loving household. Parents with their children, interlocked in love, screened from the outward world, housed, and harbored, and imparadised—few sights are more beautiful, and few experiences are more delightful. We do not know how happy we are while the happiness is passing.

TRYING TIMES FOR THE YOUNG.

A little later comes the trial, and our children are to go forth into the great outside world. They take their first steps. They pass from the period of easy obedience, of subjection to command, into the period in which they are to assume the responsibility of their own conduct. It is a difficult passage. How to carry a young man on from fifteen to twenty years of age is a long steering ground, and both shores are lined with perils. No one can foresee the circumstances that betide their children. As long as they are *children*, we have the good of them; but as soon as they begin to leave childhood, and to take hold upon manhood, we begin to feel that the problem becomes more uncertain, more difficult, and more full of anticipations of pain, and realizations of pain. It is the problem whether they have been educated so as to endure the temptations of outer life. Parents scarcely know what their children are made up of. They do not know what strain they will bear. They do not know where the crushing point will be. They do not know whether they can be broken or not. For the family develops, not the worst sides of the character, but the best. Nor is there any opportunity within the family, and while they are there sheltered, for them to be set upon by such temptations as may afterwards quite overwhelm them.

THE BASIS OF ALL TRAINING.

I do not propose to follow out the usual track of this subject, and discourse of family government, but to go back of that, and ask your attention to a larger view of the facts of human condition as the basis of training. The time has come in the history of the world in which we must look upon the training of our children from a much larger generalization of facts.

It is supposed that the strongest power exerted on children is the divine influence. The next thing which is concerned with the child's safety is supposed to be the employment of his own will or voluntary power. Third in the order are supposed to be our educational and Christian institutions. And there is a loose and vague impression that nature has a good deal to do with our children. Now I reverse the order, and say that the influences, historical and dynamic, which are exerted upon our children, are in the inverse order. First come the great elementary forces of nature; second, are the Christian and educational institutions, or, if you choose to call them so, the circumstances; third, is the subject's own volition. And I recognize that there is, fourthly, a divine power. This, from its very nature and conditions, it is impossible to estimate, so as to be able to say that it is greater or less than any other. It is invisible and untraceable. I accept it as a simple fact announced, but no man has any means of putting his finger on it, and saying, "That is characteristically a divine power." It acts through all the others, and is not separate from them; but of necessity we are unable to measure its relative forces.

BIRTH STAMPS THE MAN.

The first fact to which I call your attention under the head of forces of nature, is the hereditary physical constitution of the young.

Now, a man's body is his chariot. Some are put into a broken-down, rickety vehicle, and the chief business of their life is taking care of it. Their thought, perpetually, is of health, of taking care of the animal frame that is committed to them.

Nay, a man's physical organization determin a great many things that are known to be vital to one's success in life. Whether your child shall live by brain-work or hand-work depends very much on the organization of his body. If he is so organized at birth that his strength lies in bone and muscle, no fondness on your part, and no wish on his, will alter the fact that he is made to be a manual worker. There is such a thing as a classification of those that work. We may say what we please about the inequalities of society, but one thing is certain—that men who work with the brain rank higher, and always will rank higher, than those who work, under the brain's direction, with the mere bone and muscle. In other words, the higher the range of faculties with which you work, the higher is your rank, and the higher is the price of your work. And men may be said to be divided, at birth, into brain-workers and hand-workers; and hand-workers are the subordinates.

BODILY INFIRMITIES.

And even among these, birth classifies again; for if a man is born clumsy, awkward, not overbright, and is simply able to do work that is laid out for him, he ranks lower than the man who, though he may not be a thinker, is born with skill and aptness of finger.

And when our children come into life, it is as clearly marked down that some shall serve others, as it is marked down that a ton's weight shall surpass a pound's weight. The difference of lengths, the difference of numbers, the difference of quantities, the difference of material qualities, is not more absolutely fixed in the decrees of God than are men's futures relatively fixed in the simple fact of physical organization.

Does not every one see that a man with a hump on his back has not the same chance in life that a man has without one? If a man is born with a club-foot, and with a hand turned around, has he the same chance in life that a man has who is born with a perfect foot and a perfect hand? Are not the chances against him? He could not be an officer in the army. He could not be admitted at large into society with as many chances as other men have. Do you not see that door after door is shut to him? Mere physical things, without any regard to disposition, largely determine the conditions of men.

It does not militate against the great doctrine of Christian benevolence and just feeling, that men are born to have different dispositions, and that the difference is based largely on physical condition.

POETS, ARTISTS, AND SPEAKERS BORN, NOT MADE.

Many of the pursuits which men follow are determined, little as we are accustomed to think of it, by the accident of birth—if we may call anything an accident. The Egyptian law compelled men to adopt particular vocations. If a man was the son of a priest, he was obliged to be a priest. The reigning family continued a reigning family. The descendants of beggars were beggars. Trades were hereditary, and men were not allowed to abandon one, no matter how much better they were fitted for another. And there is something like that in nature itself; for it is predetermined, within given bounds, which of certain avocations a man shall follow.

When a child is born, it is said, in that great whispering-gallery where the fates reside, "He shall never be an artist;" and he never is. Why? Because he had not the faculties that qualify him to be an artist. So that door is shut to him. When a child is born, it is said, "He shall not be a scholar;" and he is not. Why? Because he has not the organization for it. That door is shut to him. When a child is born, it is said, "He shall not be an inventor;" and he is not. Why? Because he lacks the elements which go to make an inventor. That door is shut to him. When a child is born, it is said, "He shall be a warrior," "He shall be a laborer," "He shall be a drudge." These things are determined, not to the special vocation, but to the general classification. It is determined whether a man shall live to make use of his body, of his disposition, of his understanding, or of his moral sentiments. Some men are so largely endowed that they can turn themselves to a variety of vocations; they can be teachers, or legislators, or artists; but such instances belong more particularly to the teleological condition or the millennial period. At present, if you consider the race comprehensively, it may be said that man's physical condition determines in a general way what his pursuits in life shall be.

The mind is also fixed in its great elements; and it is more important than even the body in the training of our children.

DISPOSITIONS INHERITED.

First, disposition stands on nature. All dispositions may be good or may be bad, according as you carry them; but *disposition* is the term by which you describe the characteristic feeling or feelings that predominate in a man. A man's disposition is that part of himself which is manifested in his conversation and conduct. That is what we popularly understand by it. Some men are born so that they are stern; but there may be good sternness and bad sternness. A man may be a stern man, and yet kind and obliging. Stern men may have tenderness like flowers in the crevices, or moss, on the sides of rocks.

Other men are born so that they are naturally mild. Sternness is no part of them.

Some men are born firm—obstinate, the world calls it, and with too good reason, generally. Others are born yielding—feeble, the world calls it. They are easily changed. They are unstable as water. There is a reason for it in the structure of their mind. Some men are born loving. They never can love enough. Their joys and sorrows are colored by the feeling of love. Others scarcely know what it means. Some men are cold and barren as the frigid zone, and others are glowing and fruitful as the tropics. All through the scale of the mind, men stand over against each other and blend in infinite variations of composition and disposition. The first elements of disposition are good. You can train them to be good and better, or bad and worse; but the primary forces are born, and not educated.

MIND-FORCE DEPENDS ON BODY.

This leads me to say, secondly, that the forces of men, as agents acting in this world, are usually born with them. They are largely determined at their birth. A man is a unit, and everything that belongs to him goes to make up that unit. It is supposed that a man's mind is the most important thing, and that the body is relatively unimportant. In one sense it is so; but what a man's mind is in this world depends upon the body, and the conditions of the body in which it has been infixed. And we know, so far as the forces with which men are born are concerned, they widely differ. Some are languid; some are not continuous in that which they undertake; some tire to-day of that which pleased them yesterday; and they can not help it, they say—and with a considerable degree of truth. Some men are able to do single things who would break down if they had complex things to do. Some can do things if you give them time enough which they could not do quickly, because they have not strength enough to act forcibly. Other men go with the vengefulness of fate to their work, and sweep through it, as storms through the heavens, with lightnings and thunder-cracks.

HOW MEN ARE MEASURED.

We measure men in the affairs of life. Let an officer go out to select materials for organizing an army, let a commercial agent go out to select men for the various departments of trade, and how instantly do they see that there is a great difference between one and another! and how invariably do they seek for those that have forces as well as good qualities—good qualities with forces behind them! There are a great many who would have made magnificent men if they had had any propelling power. They are quietists. Why? Because they have not blood enough to aerate their brains. Why? Because they are built too large in the head and too small in the trunk. And what has that to do with it? It interprets God's thought. When God made a man, he made it very important that he should have a head. And then he made that head itself to be dependent for its supplies. The head feeds. And where does it feed? At the heart. The heart brings the food to the head. Where does the heart get it? In the lungs, where it is vitalized. The lungs are the kitchen, the heart is the servant, and the head is the master that eats. And how about the stomach? That is the grand digester that supplies the materials which the heart and lungs send to the head.

ORATORS NEED BODY.

A man requires force; and for force he is dependent upon the way in which he is made. There are some men who will use up in one hour's speaking all the force that they accumulate in a week. It was so with Dr. Channing. He preached once on Sunday, and was keeled over all the rest of the seven days. He was like a gun that recoils so that it kicks the carriage to pieces every time that it is fired. His gun was too big for the carriage that supported it. On the other hand, there are men who will work six days in a week, and every day alike, and not exhaust their strength. People say, "How wonderfully they are sustained!" I say, "How wonderfully they are organized!" How much praise is given to men for doing things for which they do not deserve any more praise than a dove deserves for flying instead of walking! God made them with a big stomach and a big head, and their heart sends the blood abundantly to their head, and the head takes advantage of it, and works easily and effectually. The difference in the different cases is owing to the difference in organization.

And this question of forces is also dependent upon the relative preponderance in men's minds of faculties. Some men are aggressive, combative, and some are not. Some have a great deal of hope, some have but little. Some are born with fear or caution, and some are born without it.

EDUCATION DEVELOPS NATURAL POWER.

It may be asked, "What has education to do if you put such emphasis on these primary facts of creation? Is there any sphere left for education?" Oh, yes, an abundant sphere. Education is not designed to change the nature of faculties, but simply to train them according to their nature into new combinations.

You can not change the fundamental nature of faculties, but you can determine what a particular faculty shall do. You can take silk and cotton, and put them together, and determine what they shall be when they are combined; and education simply undertakes to determine what the faculties shall be when brought into partnerships. By their combination it represses some, or limits them to certain degrees of manifestation. It determines not what they are, but what they shall be permitted or inspired to do. The direction of faculties, and not the changing of their nature, is the appropriate business of education.

Six men take six farms. One has a sand plain; another has a clay field; another has a rocky field, in which you can not tell what the soil is; another has a loam; another has an upland and over-dry soil; and another has a bog farm. They can not alter the fact that alluvial is alluvial, that diluvial is diluvial, that clay is clay, and that sand is sand. Each man is to make his farm productive; but he is to take the clay farm and work it according to its clay nature, he must work the sand farm according to its sand nature, and he must work the rocky farm according to the nature of a farm with rocks on it. He must obey the facts which lie in the farm before he can make it fulfill his desires. Education takes the soil as it is given into his hands, and treats it according to its original nature, only taking care to treat every sort of farm so that it shall bear fruit and produce harvests.

HUMAN RESPONSIBILITY.

But it may be asked, "How, then, is a man to blame?" A man is not to blame for what is given to him, but only for what he does with it. A man is not to blame for the fact that he has nothing but a walking-staff; but if he uses it as a weapon of offense to kill an innocent man with, he is to blame. A man is not to blame for the fact that he has such and such faculties; but he is to blame for the wrong use of those faculties. Every man that is sane and rational, is able to discriminate the right and the wrong use of his faculties; and the blame lies in the way that he uses them, and not in the fact that he possesses them.

"Why," you say, "if a man is born obstinate, how is he to blame for his obstinacy?" I beg your pardon; if a man is born firm, that is no reason why he should be obstinate. There is a difference, too, between being firm benevolently and being firm selfishly. If a man is firm benevolently, everybody says, "Thank God, that he is made so;" but if he is firm selfishly, everybody says, "What an obstinate man is he!" A man is responsible for the way in which he uses firmness.

If a man is born with secretiveness, he is not obliged to steal or lie. That faculty has a thousand functions besides its depraved ones And there is a sphere for every faculty, in which it may properly move. And all men are responsible for using their faculties according to the law of benevolence, and not according to the law of selfishness.

FREE AGENCY.

I observe from my windows that there come down the East River magnificent men-of-war from the Navy Yard, with a bank of guns that fills the imagination with visions of power and terrible efficiency. And lifted up and lying against the sky are spars and rigging. And as they swing at anchor, the banner of our country—our stars and stripes, the sweetest flag on which the sun shines—floats out on the breeze. And the morning and the evening gun booms at the appointed hour. I think that next to the things that God made, the fairest is the ship, which man, learning through ages, has at last learned to make, and which, as it moves on the moving element, is the most strong and powerful, and yet the most plastic and yielding thing in the world. I see, soon after, coming up the bay, wing-worn and way-beaten, a bark. She is not a man-of-war. She is a merchantman. Close after her comes a brig, that runs in and anchors under the guns of the ship. And after her comes a square-rigged schooner. And after her a fore-and-aft schooner. And after her a sloop. And after her a smack. And after her a lighter. And I say that whether it is a man-of-war, bark, brig, hermaphrodite brig, square-rigged schooner, fore-and-aft schooner, sloop, smack, lighter, or what not, every one of them must fly its country's flag. It must sail according to its own nature, but it must sail in the interests of patriotism, and in obedience to the laws of the country. And it is just as easy to have a patriotic sloop as a patriotic man-of-war. It is just as easy to have a law-abiding schooner, as a law-abiding bark or brig. And yet does any man say that because they are cut out on different patterns, and built differently, they can not be alike patriotic, and that only a man-of-war can be devoted to its country's service? Men would be fools to talk so about vessels, and men are fools that talk so about men. Men are built differently in hull and rigging; they are built with different capacities and for different things; but they are all built so that they can fly God's flag, and can sail within the laws of morality; and they are all built so as to be amenable to the great decrees of God in respect to the use of human faculties.

PARENTS SHOULD STUDY CHILDREN.

Let us, then, in answer to two points, apply these statements to the training of families.

I mention, first, the mistakes incidentally committed by parents who undertake to rear their children with an entire ignorance of what their children are, seeking to make them what they can not be made. Many disagreements between parents and children arise from the fact, that the well-meaning and ignorant parent attempts to warp and bias the child against its nature, and to hinder the child from that which is according to its nature. You are slow-molded, and your child is lithe and quick as a cricket. Your idea of order and obedience in the child is that it should be still. God says to it, "Sing, sing! chirp, chirp!" He obeys the divine injunction, and begins to sing, when you say, "I have told you ten times this morning to be still." And the child is angry. His pride and self-respect are wounded. And if he does not utter an oath, he thinks one. Who made him swear! You did, because you took the law of your being, and tried to bend him to that, not recognizing that he had a nature of his own. Parents are perpetually saying to their children, "When I was of your age I used to do such and such things." If you can show that your child was born out of the same mold that his father was, and that his circumstances in life are the same that his father's were, then to talk thus may all be very well, but if you can not show that, then it is not fair. Every child must go according to what is in him, and not according to what is in the father. Though a man may be a good father, the changes that have been wrought in society are such that the circumstances of the child in life ought to be different from what his were. It is a part of the law of evolution of plants that the top leaf is not bound to develop itself as the bottom leaf did. And the attempt of parents to train their children according to themselves is one of the mistakes that lead to the conflicts that take place between parents and children.

SELFISHNESS IN PARENTS.

Thousands of parents govern their children simply and solely for their own luxury and convenience, and take no pains to smooth the tones of their voice or to measure their action. The thought of courtesy in their dealings with their children is almost dismissed from their mind. I have seen children so grossly insulted by parents that nature in me said, "The parents ought to be severely punished," while grace in me said, "No, no; they only ought to be reproved and taught

better." Because God lent a little child to you, he did not lend it to you to be a rug for you to wipe your feet on; he did not lend it to you to be a slave to run of errands, merely; he did not lend it to you to practice your cruelty and irritableness on. That child was God's before it was yours. It was only placed in your hands for a little time; and if every parent felt, on addressing a child, "There is something of divinity in it as well as in me," I think it would purge our families of much of the ill-government that is in them.

SENTIMENTAL TRAINING.

You will see the folly of another mode of training children according to an extravagant theory of manhood. Many that have read sentimental books and magazines have an idea that a good child is a child that does not do this or that, or anything, except to die and have a Sunday-school book written on his memory! To their mind, a good child is one of those marvels that may be, like a marble, turned with equal facility in any way. They have their ideal of what it shall be. And behold, when they come to carry their plan into execution, that little depraved monster will not do one of the things that they expected of him!

Imagine, if you please, a spider attempting to bring up a bumble-bee according to a spider's nature. What work would he make? Imagine a dove in whose nest had been left a little eaglet attempting to bring it up as though it was a dove, and according to a dove's theory and notion. Imagine anything attempting to impose its inward nature on anything that has a different inward nature. We see the folly of this as applied to lower animals and birds; but it is precisely as foolish as applied to men. It is preposterous for a stern man to govern a pliable child according to the law of sternness, or for a sober man to govern a genial child according to the law of sobriety.

Every child must be made conformable to all moralities, and to all religion. So far as that is concerned, there is a uniform work to be done, whatever the child is, and whatever his disposition is. Lying is wrong in all dispositions and temperaments. Selfishness is wrong in all dispositions and temperaments.

ALL THE FACULTIES GOOD.

We must always make a distinction between educating a faculty, and educating against a faculty. Many attempt to educate their children by running against their faculties. There is an impression that many of the faculties were put in by mistake, or that they were invalidated by the fall, so that in themselves they are bad. Now, there is not one faculty in the human mind that God did not mean to put there, that he did not put there for a good purpose, and that in its original nature as he contemplated it, was not good. Therefore, when our children are going wrong, and we perceive that they are perverting any faculty, the way is not to attempt to destroy that faculty or prevent its activity, but to guide it.

RADICAL MISTAKES.

You can never educate a child that has strong self-reliance not to be self-reliant. If you think it necessary to a Christian doctrine of humility to inculcate in a child the feeling that he is nothing at all, and the child has large self-esteem, conscientiousness, and firmness, you might instruct him out of as many catechisms as would make a pavement from here to heaven, and that child, in spite of his will and wishes it may be, will have that central feeling still. He can not help it. What, then, should you do? You should say to him, "God gave you large self-esteem, and you must take care of it; when you act rightly with it, it is a noble faculty." It is the parent's duty to teach the child what the normal functions of self-esteem are.

Many parents think the love of praise is wicked. It is God-born. But parents think that the way to teach it is modify it. If a little girl is handsome, the mother says, studiously, "You are homely!" and the child looks in the glass, and says to herself, "It is not so." If the child has a pretty scarf, the mother says, "You are vain because people admire your scarf." If the child has a beautiful new bonnet, the mother speaks as though it was a sin to be pleased because people like her bonnet. It is not a sin; it is right. It is wrong to be inordinately fond of admiration, and education consists in telling the child how far right goes, and where wrong begins. Education consists, not in saying to the child, "You must not have those feelings," but in teaching the child how to carry those feelings. And that is what parents seldom do. And as it respects the love of praise, it is to a certain degree proper to love to be praised for physical excellences; but the duty of the parent is to teach the child to love to be praised for manliness, for noble qualities. The love of praise is divine, and will make a man divine, provided the things for which he employs it are high enough, manly enough, noble enough, Christian enough. And the same is true of every one of the faculties of the mind. Parents are to teach their children how to use that which God gave them, and are not to attempt to destroy the use of it in them.

CHOICE OF VOCATION.

Another point. We must not attempt to select too closely our children's life-work, especially if they show that they have a natural tendency in any right direction. This is apt to be a fault, not of poor men, but of rich men. Poor men are glad to have their children do anything that will yield them an honest livelihood. If a man is poor, and his child wants to be a mason, he lets him be a mason. If the child wants to be a carpenter, that is well enough. If he wants to be a farmer, a poor man's son makes a good farmer. A poor man's son does not let himself down by going to sea. It is only to those that are rich that these common pursuits of life are foolishly esteemed disgraceful.

TOO PROUD TO BE USEFUL.

Here is a man that was once poor, but that has become wealthy. Bankers bow to him, and pat him familiarly on the shoulder; and because he is rich, and because great men look at him, he is proud, and he begins to feel, "It will not do for my children to be brought up like common folks' children. That boy of mine I mean shall be a lawyer, and I hope one day to see him in Congress." But the little fellow has an appetite for colors and pencils. He does not like books, and he *will* be running after what he calls "the development of his artist tendency." There is still another boy that gives the father yet more trouble. He has an intense love for mechanics, and is determined that he will be a machinist. Nothing pleases him better than to be in foundries, among dirty stithies, looking at the men as they work, and talking with the foreman and the draughtsmen. And the father is perfectly shocked at the idea that the son of such a respectable rich man as he is should be a mechanic. "Why," says he, "it would be a disgrace to my family! It will not do at all!" And so he attempts to make a merchant out of his son.

TOO GOOD TO WORK.

Now, no man's flesh and blood is too good to work. If your son wants to go to sea, he is not too good to go to sea. If your son wants to be a mechanic, he is not at all too good to be a mechanic. If your son wants to work on a farm, dirt is healthy for your boy. Where a child is equally well adapted to several avocations, and it is more convenient to put him in some than in some others, a parent may exercise a reasonable influence upon his choice; but a parent is never to overrule a decided bent or disposition of his child for any honorable calling in life.

RELIGIOUS TRAINING.

I will make but one other application, and that shall be with reference to the religion of our children. It is a common saying of some men in the world, that children are not old enough to select their own religion, and that it is not fair to prejudice their minds beforehand. "Wait," they say, "till the child has arrived at years of discretion, and then let him take his choice." That is about as wise as it would be for a man to say in respect to his field, "I am not going to prejudice that field in favor of wheat, or corn, or any other kind of grain, so I will let it remain uncultivated for ten years." And at the end of the ten years Canada thistles, and burdock, and all manner of weeds have got in and gone to seed, so that for a foot deep it is one complete mass of germinating mischiefs. And that is the result of what he calls letting his ground alone. If you will agree that the devil shall not sow any seeds in the vacant mind of the child till he is twenty-one, then I will consent that no steps shall be taken toward forming his religion till he is twenty-one. But you are to make a distinction between moral training and dogma. It is not necessary that the child should have any particular theory on election or moral government, as between the Methodists, the Baptists, the Presbyterians, and the Episcopalians. These external questions he need not adjust till he is older. But moral training is a part of education; and you might as well say that you will not train a child's hand till he is twenty-one, as to say that you will not train his conscience, his sense of right and wrong, his power to discriminate between truth and lie, till he is twenty-one. It is your duty to train the child, and you do him no injustice in guiding his morals and leading him into the path of rectitude. You may let his theological training go, but his religious training ought to be a matter of every-day life. All faculties of the human mind should be trained co-ordinately. The different parts of man's soul, moral, affectional, and passional, should be brought into one harmonious confederacy or republic.

SACREDNESS OF PARENTAGE.

My friends, it is no small matter to be called of God into parentage. Around the door where the eternal world stands most revealed, men are wont to dance with lightest step and gayest gesture. There, where human life is unfathomable; there, where the heart is opened to love; there, where existence moves before us in endless processions toward eternity—there men are least thoughtful and less careful; there is the most jesting; there is the most ribaldry. About the most sacred things there seems to be the least conscience, the least sobriety, the least moral sentiment.

There is nothing so sublime in this world as the touching of two souls together in love, and yet, when the household is established, and the word goes about the joyful circle, "A child is born," there is almost no serious thought except on the part of the widowed and aged one that sits in the corner, and gently shakes the head, and speaks no word. What to her is the announcement, "A child is born?" There rolls out before her mind a sea of trouble. Storms, and gales, and shipwrecks, and sicknesses, and sufferings, and tears, rise up before her mind. She has had experience. But to the rest all is joyful hope and brightness.

I would not spread a dark picture before you, or take aught from any bright picture on which you are able to look; but I would say to every young parent, "The ordination of a minister over a church is nothing at all in solemnity compared to that ordination with which God ordains you in your household. An ordinary pasturate in the church is inconsequential by the side of a pasturate in the family. If God has called you to take care of children, you will have a study before you; and you are bound to look into their nature, to know their constitution, and to acquaint yourself with those great laws on which their training depends.

Further influences that are derived from society and its institutions, and particularly those that are derived from religion, will form the topic of other discourses.

Ethnology.

THE LAW OF INHERITANCE.*

NATURAL SELECTION AND CAUSES OF VARIATION IN ANIMALS AND MAN.

THERE are two great facts or laws applying to all organic nature, which must be thoughtfully considered in the very outset of this investigation—one, the *Law of Inheritance*, or the principle that the offspring shall inherit the characteristics of the parent, which lies at the basis of the permanence of type and of many other important facts in nature; and the other, the *Law of Variation*, or the tendency in the offspring to differ from the parents and from one another, whether as an effect of external influences or from some power in the organism itself. The latter secures idiosyncrasy and variety in nature, as the former gives stability and order. It should be remembered, that though we can not give an explanation of Variation in every particular instance, it is none the less an effect of laws, and is far removed from accident or chance.

TWO FORCES ACTING ON EACH LIFE-GERM.

Thus far, at least, we can see, that the offspring, combining to a degree the qualities of both its parents, must present a result different from either; if we add to this the influence of external circumstances which must, for every newly organized being, be somewhat different than for its parent, we shall see some cause for each generation presenting a slightly new combination of characteristics. When Variation has once begun, and the offspring is produced with a slightly different peculiarity (why, we may not be able to tell), *its* offspring again is acted upon through the principle of Inheritance, by what we may figuratively describe as two forces—one, the tendency to resemble its own parent, and the other, that to resemble all its ancestors. M. Vilmorin has well called this latter, "an aggregation of forces, composed of the individual attraction of a series of ancestors," which is the attraction of the type of the species, and generally determines the result. But the attraction to its own immediate parent, though less powerful than that to its ancestry, is more close, and tends to give the offspring all the parental characteristics. So, says Dr. A. Gray, "when the parent has no salient individual characteristics, both the longer and shorter lines of force are parallel and combine to produce the same result. But whenever the immediate parent deviates from the type, its influence upon its offspring is no longer parallel with that of the ancestry; so the tendency of the offspring to vary no longer radiates around the type of the species, as its center, but around some point upon the line, which represents the amount of its deviation from the type."

NATURAL SELECTION.

The variations—though we may not be able to explain their origin, whether from external influences on the germ-cell, on the fœtus, or the growing organism—are perpetuated according as they are of advantage to the possessor, enabling it to gain more nourishment or to resist better destructive influences, while those destitute of these advantages, perish.

It will be seen from these brief statements, why, at a certain period, there may be numerous variations in a given stock, and afterward, these varieties become (historically) permanent.

PHENOMENON OF SPORTING.

It is well known that with plants, a new variety tends to *sport*, or as it were to play off into new deviations. It is "loosed as it were from the ancestral influence, which no longer acts upon a straight and continuous line, but upon one broken and interrupted by the opposing action of the immediate parents and grandparents."

Now in nature, suppose a family of animals removed by some accident to a different climate and feeding ground than those to which they are accustomed: as for instance, a flock of sheep from Europe to South America. Some of the lambs are born, we know not why, with a little hair instead of wool. In other countries, this variety would have had no more chance for surviving than any other variety; perhaps less, as it would be more exposed to the cold. But here, the slight advantage of the hair may give the lamb a better power of enduring the heat, and so this variety be perpetuated, and its descendants, being "loosed from the attraction' toward its ancestors, may show various singular deviations, until at last a new type is formed—still a sheep, according to the Law of Inheritance, but a new variety of sheep—fitted the best to procure food and to resist destructive agencies in its new circumstances.

So, again, suppose swine introduced from Europe to South America. If turned out to become wild, the pigs, which from some chance are born with a slight peculiarity—as longer teeth or more erect ear or more solid hoof or blacker color—which peculiarity may be an advantage in escaping the hunter, or in rooting for food, or destroying their enemies, will naturally have the best chance of living and propagating, and their offspring again, so far as they possess these advantages, will be perpetuated, and these singularly marked hogs, with tusks or erect ears or solid hoofs or black color, may become varieties (or even species). They may deviate even more singularly, having once begun to vary from their ancestors, and the only limits may be in the force of the Law of Inheritance, and in the adaptation of the new varieties to their new circumstances.

It will be possible also that these wild hogs, if after a long course of time re-transplanted to other countries and climates, may still show their acquired properties as permanent characteristics, for the Law of Inheritance will then be in favor of their preserving their new type, as all their more recent ancestors have belonged to this type. But then again, in the still new circumstances (if sufficient time be given), yet another new type may be formed.

STATEMENT OF THE ARGUMENT.

We need not say that these instances are in the main, not supposed cases, but facts.

Our argument then, as applied to man, will be: (1) that *a priori* we should expect man to vary; (2) that he presents no greater varieties than do animals who are known to be of one origin; (3) that the members of a well-marked race of men differ among themselves as much as some of the various races differ from one another; (4) that the phenomena of acclimation and of crossing of races are in favor of the presumption of unity, and (5) that under the principles already stated, of Inheritance and Variation, with the element of *sufficient Time* added, we can more satisfactorily account for the present varieties of man, on the hypothesis of a common origin than on any other hypothesis.

PROBABILITY OF HUMAN VARIATION.

1. Without being able to account for the fact that the offspring differ from its parent, we can have no doubt that external influences act upon the living principle of the germ, and this again reacts upon its circumstances. If further, we suppose this germ when developed, to be inspired with a living power exceedingly sensitive to every kind of influence and able again to work back upon the structure and organs which it employs, we might well expect the developed organism to be wonderfully modified.

Man is such a being, not merely exposed to the usual unexplained variations of all animals, but possessing a Soul, which is affected by everything surrounding it and which is constantly molding or influencing its bodily structure.

We should expect man to show more varied offspring than any other creature, and the only wonder is that he does not present more varieties or races. In mental peculiarities, we may at least claim for him greater variation, or, in other words, greater individuality—than for any other animal.

ANIMALS VARY AS MUCH AS MEN.

2. In point of fact, however, animals show as great variation, even when of one common stock, as do the different races of men. The facts collected in support of this point by Isidore St. Hilaire, Roulin, Prichard, De Salles and others, are so numerous that it will be difficult to condense them within the space required.

The principal seat of variation in animals is the epidermic or horny tissue, showing the variety in horns, hoofs, and skin, and it corresponds to the extra-cutaneous texture in man which manifests the changes in color and hair.

Of the change in *swine*, when transported to South America, we have already spoken. Some have acquired erect ears, vaulted foreheads, and heads much larger than were found on the original breed. With some, the color becomes black, and with others the skin acquires a thick fur beneath which is a species of wool; some again are red; others have solid hoofs. One breed is found in Quebaya with toes half a span in length, long white ears, pendent belly, and long tusks, crooked like the horns of oxen.

The hogs* in the West Indies, when left out wild, become in time the wild boars. It is an evidence that variations in animals are not confined to superficial changes, but are sometimes, to a degree, structural, that the number of the caudal, sacral, lumbar, and dorsal vertebræ vary in the hog; and that the wild hog has six incisor teeth in his upper jaw and six in the lower, while the tame animal is reduced to three.

INSTANCES OF VARIATION.

Sheep, under different circumstances, have produced great varieties. Among those introduced into South America, a hairy breed has grown up. A breed has been formed with monstrous tails; others are found with projecting lips and pendent ears. Sheep, says De Salles, have been seen among the Kirghis with mere masses of hairless fat for tails, and these same sheep when transported to another country lose their fatty appendages. The sheep of Yemen, introduced into Egypt, have acquired a straight rude hair, with a fine down at the roots. Some of the merino sheep are covered with wool and others with hair, quite differing in structure, and sometimes the same individual under new circumstances shows the changes from wool to hair.

Our readers are abundantly familiar with the short-legged breed of "Otter sheep," originated by accident in Massachusetts, and transmitted by inter-breeding.

The *Goat*, since its introduction into South America, has formed a variety more agile and slender, with better formed heads, smaller horns, and smaller teats, than the original stock.

Cattle, exported from Europe to the Antilles and to South America, have formed a hairy breed; others are hornless and still others become hairless, and transmit this property to their descendants. When wild, the cow loses her large dugs.

With increased food in domestication, the ox and sheep have their abdominal viscera enlarged;

---

* Extracts from Mr. BLACK'S work on ETHNOLOGY, now in the press of C. SCRIBNER & Co., New York.

* "It is perfectly demonstrated," says Dr. Hollard, that all our races of domestics pigs, with their difference of size, ferm, skin, color, proceed from the wild animal, thick and short, low upon the legs, with large head, stiff ears, armed with triangular defenses, which project from the mouth, covered with hard bristles, longer upon the back, and under which is hidden a little hair, and in a word, whose natural color is a blackish gray. Restored to liberty the domestic pig retakes, after a few generations, the characteristics of the wild type; the bristles become stiff, a sort of woolly skin develops itself under them, the natural color reappears, the defenses lengthen and increase; the skull itself, which, in the domestic state, is remarkably straight, retakes this lower line of profile, and the more massive jaws which distinguish the head of the wild boar. Nothing is more variable, on the contrary, than the races of this species submitted to the influence of man; their disposition to be modified is most marked." (De l'Homme.)

to suit the increased size of the stomach and the intestinal canal. the trunk becomes larger in all its dimensions; the respiratory organs change and with them the form of the chest; the limbs are shorter and farther apart, and the body being nearer the ground, the neck becomes shorter. Various muscles from disuse diminish, and the tendency to obesity increases. Thus a new form and new habits are acquired and are transmitted.

M. de Filippi reports the existence of a race of cattle in Piacentino, which have fourteen pairs of ribs instead of thirteen. [Quatrefages, p. 128.]

The horses, according to M. Roulin, transported to South America, have formed a race with fur, instead of hair, and have changed to an almost uniform bay color.

Of two colts of the same race, says Carpenter, born in Lorraine, for instance, and transported one to Flanders, and the other to Normandy—after three years, the one will be the light, elegant carriage-horse and the other an enormous animal, fitted only for the heaviest work, and almost incapable of a trot. Here, food is probably the especial cause of variation. Horses, when transported to North India, are said to acquire wool instead of hair.

De Salles relates that the asses on the Cordilleras become hairy as bears; and the wild ass is well known to change its rough tubercular skin into a smooth skin, under domestication.

Of *cats* and *dogs*, St. Hilaire says that the former have their alimentary canal lengthened, and the latter, their front brain enlarged by domestication. Both mewing and barking seem to be lost by these animals in their wild state. Dogs carried to North India acquire wool instead of hair, while others in Africa become hairless The European dog, if left wild on the coast of Africa, gradually comes to look like a jackal; his hair becomes red, tail branchy, ears stiff, and his voice changes to a howl. The Dingo dog, in Australia, has the appearance of a wolf.

It is related, as an instance of the change which may be brought about in a breed, that English greyhounds exported to the mountain-plateaus of Mexico—some 9,000 feet above the level of the sea—and employed to hunt hares, could never catch them, but fell down gasping for breath, so unaccustomed were they to the rarity of the atmosphere. They produced pups, however, that became adapted in their lungs to the atmosphere and caught the hares easily.

In exporting *fowls* to South America, the first experience with the geese, for instance, was that half of the young died, but gradually some survived who were a little more adapted to the climate, until a permanent variety was formed, suited to its new circumstances. A breed of hens has been originated by the influence of climate, in South America, which are nearly naked; another in Nicaragua, which are black.

VARIATIONS FROM FOOD.

All are aware that the Dorking breed was preserved by fanciers, from an (apparently) accidental variety, with five toes and some other peculiarities. With geese and ducks, when the eggs of the wild birds are obtained and the young are supplied with abundant food, the intestines and abdomen become enlarged, so that the bird nearly loses the power of flight and her wings become unserviceable, and she produces young as helpless as herself.

Among birds, the bullfinch, according to St. Hilaire, becomes *black* when fed on exciting food, especially hemp seed.

The great importance of these facts, which might be multiplied indefinitely, is that they all relate to animals, whose origin we *know*.

VARIATIONS IN ANIMALS OF ONE ORIGIN.

It can not be replied in regard to the phenomena of variation observed, for instance, in sheep and swine in South America, that each well-marked breed had its own separate parent there, who was created in that country, with all his peculiarities. We know that all these various races—woolly and hairy—short-legged and long-legged—black and white—with all their other peculiarities, came from one common stock. It must be remembered that the changes from the original breed, which these animals manifest, are not merely external and superficial, but often deviations in structure and functions.

Similar instances might be increased to an indefinite extent, from animals who are generally supposed by naturalists to belong to the same species and to be of one origin, but who have now deviated widely. But as the case seems sufficiently strong with these facts in regard to animals whose common origin is certain, we refrain from treading on ground in any way disputed.

[To prove the "UNITY OF MAN" is the drift of the argument of this writer. We give place to his statements, holding in reserve our own opinion, which shall be given in a future number.—EDS.]

THE BRAIN THE ORGAN OF THE MIND.

[AMONG volumes of physiological testimonies going to prove the fact that the brain is the organ through which the mind manifests itself, the following may be added.]

In cases of compression of the brain, we have irrefragable evidence that in this life the exercise of the thinking power depends on the state of that organ. M. Richerand had a patient whose brain was exposed in consequence of disease of the skull. One day, in washing off the purulent matter, he chanced to press with more than usual force, and instantly the patient, who the moment before had answered his questions with perfect correctness, stopped short in the middle of a sentence, and became altogether insensible. As the pressure gave her no pain, it was repeated thrice, and always with the same result. She uniformly recovered her faculties the moment the pressure was taken off.—"Nouvaux Elémens de Physiologie," 7th edition, II., 195-6.

Again, a man at the battle of Waterloo had a small portion of his skull beaten in upon the brain and became quite unconscious, and almost lifeless; but Mr. Cooper having raised up the depressed portion of bone, the patient immediately arose, dressed himself, became perfectly rational, and recovered rapidly.—Hennen's "Principles of Military Surgery."

Professor Chapman, of Philadelphia, mentions in his lectures that he saw an individual with his skull perforated, and the brain exposed, who used to submit himself to the same experiment of pressure as that performed on Richerand's patient, and who was exhibited by the late Professor Wistar to his class. The man's intellect and emotional faculties disappeared when pressure was applied to the brain; they were literally "held under the thumb," and could be restored at pleasure to their full activity.—"Principles of Medicine," by Samuel Jackson, M.D.

A still more remarkable case is that of a person named Jones, recorded by Sir Astley Cooper. This man was deprived of consciousness by being wounded in the head while on board a vessel in the Mediterranean. In this state of insensibility he remained for several months at Gibraltar, whence he was transmitted to Deptford, and subsequently to St. Thomas' Hospital, London. Mr. Cline, the surgeon, found a portion of the skull depressed, trepanned him, and removed the depressed part of the bone. Three hours after this operation he sat up in bed, sensation and volition returned, and in four days he was able to get up and converse. The last circumstance he remembered was the capture of a prize in the Mediterranean thirteen months before.

DORMANT FACULTIES.—Circumstances do not change people. They only develop character. As there are a thousand thoughts lying within a man that he does not know till he is called upon to act, so the mind is a secret even to him who has it in his own brain. Who hath not found himself surprised into revenge, or action, or passion for good or evil, whereof the seeds lay within him latent and unsuspected till the occasion called them forth? No man knows himself until he has been tested on all sides. What developments of character and disposition the events of the hour are making!

Physiology.

ANATOMY OF THE EYE.

THE eye, whether considered as an instrument of sight merely—that is, in its mechanical aspects—or in its physiological relations and functions, is a most wonderful organ, one which Infinite Wisdom alone could have constructed. A brief view of its anatomy will be useful in connection with the physiognomical views set forth in the preceding articles.

The structures of the visual organ may be conveniently divided into three classes: the *coats*, *humors*, and *appendages* of the eye. The eyeball is of a spherical form, about one inch in diameter. The globe of the eye is composed of three *coats* or *tunics*, and three *humors*.

OUTER COAT OR FIRST TUNIC.—The first coat of the eyeball is formed of the *sclerotic* and *cornea*. The sclerotic is a dark, fibrous membrane, investing about four fifths of the globe. Its anterior surface is covered with a tendinous layer, called the *tunica albuginea*, which is derived from the expansion of the tendons of the four recti muscles. A part of the tunica albuginea is covered by a mucous membrane called the *conjunctiva*, which constitutes the "white of the eye." The sclerotic forms a thin, sieve-like plate, called *lamina cribrosa*, at the entrance of the optic nerve; this lamina is full of openings for the passage of nervous filaments. The largest of these openings in the center is called the *porus opticus*, through which the *arteria centralis retinæ*—central artery of the retina—enters the eyeball. The cornea constitutes the anterior fifth of the globe. It is circular, transparent, and resembles a watch-glass. It is received into the grooved edge of the sclerotic in the manner that a watch-glass is received into its case. It is composed of four layers, the external being the white membrane, or conjunctiva before mentioned.

MIDDLE COAT.—The second tunic is formed of the *choroid*, *ciliary ligament*, *iris*, and *ciliary processes*. The *choroid* is a vascular membrane, of a rich brown color externally, and of a deep black on its inner surface. Posteriorily it has an opening for the passage of the optic nerve; it is connected anteriorily with the iris, ciliary processes, and with the junction of the sclerotic and cornea, by a dense white structure, called the ciliary ligament, which surrounds the circumference of the

iris, like a ring. The choroid membrane is composed of three layers, the external being principally an arrangement of veins called *venæ vorti-*

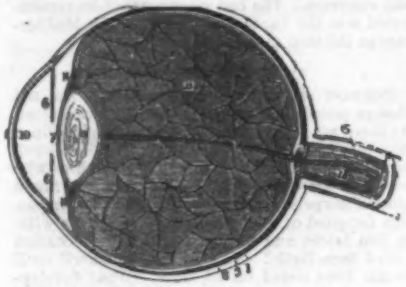


FIG. 1.—SECTION OF THE EYEBALL.

Fig. 1 is a longitudinal section of the globe of the eye. 1. The sclerotic, thicker behind than in front. 2. The cornea, received within the anterior margin of the sclerotic, and connected with it by means of a beveled edge. 3. The choroid, connected anteriorily with (4) the ciliary ligament, and (5) the ciliary processes. 6. The iris. 7. The pupil. 8. The third layer of the eye, the retina, terminating anteriorily by an abrupt border at the commencement of the ciliary processes. 9. The canal of Petit, which encircles the lens (12); the thin layer in front of this canal is the zonula ciliaries, a prolongation of the vascular layer of the retina to the lens. 10. The anterior chamber of the eye, containing the aqueous humor; the lining membrane by which the humor is secreted is represented in the diagram. 11. The posterior chamber. 12. The lens, more convex behind than before, and inclosed in its proper capsule. 13. The vitreous humor inclosed in the hyaloid membrane, and in cells formed in its interior by that membrane. 14. A tubular sheath, of the hyaloid membrane, which serves for the passage of the artery of the capsule of the lens. 15. The neurilemma of the optic nerve. 16. The arteria centralis retinæ, imbedded in the center of the optic nerve.

cosæ. The middle layer is formed by the ramification of minute arteries. The internal layer is a delicate cellular structure, containing the *pigmentum nigrum* or coloring matter of its posterior surface.

The *ciliary ligament* forms a circle round the iris, connecting the cornea and sclerotic at their junction with the iris and external membrane of the choroid.

Fig. 2 is a dissection of the eyeball, showing its second tunic, and the mode of the distribution of the venæ vorticosæ of the choroid. After Arnold. 1. Part of the sclerotic coat. 2. The optic nerve. 3 3. The choroid coat. 4. The ciliary ligament. 5. The iris. 6 6. The venæ vorticosæ. 7 7. The trunks of the venæ vorticosæ at the point where

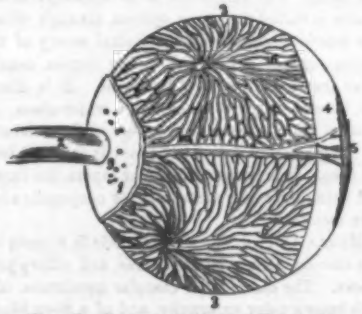


FIG. 2.—DISSECTION OF THE EYEBALL.

they have pierced the sclerotica. 8 8. The posterior ciliary veins, which enter the eyeball in company with the posterior ciliary arteries, by piercing the sclerotic at 9. 10. One of the long ciliary nerves, accompanied by a long ciliary vein.

The *iris*, or rainbow, is so denominated from its variety of colors in different individuals. It makes a partition between the front and back chambers of the eye, and has a circular opening near its center, called the *pupil of the eye*. The iris is composed of two layers, the anterior is muscular, consisting of both circular fibers which surround the pupil, and radiating fibers from the center to the circumference; the combined contraction of these fibers diminishes the diameter of the pupil.

The *ciliary processes* consist of triangular folds of the middle and internal layers of the choroid. Their circumference connects with the ciliary ligament; being covered with a thick black pigment.

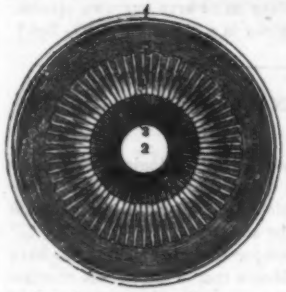


FIG. 3.—ANTERIOR SEGMENT.

Fig. 3 is the anterior segment of a transverse section of the globe of the eye, seen from within. 1. The divided edge of the three tunics: sclerotic, choroid (the dark layer), and retina. 2. The pupil. 3. The iris, the surface presented to view in this section being the uvea. 4. The ciliary processes. 5. Scalloped anterior border of the retina.

INNER COAT.—The third tunic is the *retina*. It is formed of three layers. The external is a mere *film*; the middle or *nervous* is the expansion of the optic nerve, enveloping the vitreous humor, and extending forward to the ciliary processes; the inner membrane is the *vascular*, composed of ramifications of arteries and veins.

FIG. 4.—POSTERIOR SEGMENT.

Fig. 4 is the posterior segment of a transverse section of the globe of the eye, seen from within. 1. The divided edge of the three tunics. The membrane covering the whole internal surface is the retina. 2. The entrance of the optic nerve with the arteria centralis retinæ piercing its center. 3 3. The ramifications of the arteria centralis. 4. Foramen of Soemmering, in the center of the axis of the eye; the shade from the side of the section obscures the limbus luteus, which surrounds it. 5. A fold of the retina, which generally obscures the foramen after the eye has been opened.

The anterior margin of the retina is connected with the anterior surface of the lens by a thin vascular layer, called *zonula ciliaris*. There is a circular spot in the retina, in the center of the back part of the globe, called the *foramen of Soemmering*, surrounded by a yellowish halo, called *limbus luteus*.

HUMORS OF THE EYE.—The *aqueous humor* occupies the two chambers of the eye. The *anterior chamber* the space bounded by the cornea in front, and the iris and pupil behind; the *posterior chamber* is the very small space between the pupil and posterior surface of the iris in front, and the ciliary processes, crystalline lens, and zonula ciliaris behind. Both chambers are lined by a thin membrane, secreting the fluid of the aqueous humor, which does not exceed five or six drops in bulk.

The *vitreous humor* makes the greater part of the bulk of the globe of the eye. It is a glassy, transparent fluid, inclosed in a delicate membrane, called the *hyaloid*. The inner surface of the hyaloid is disposed in thin lamellæ or plates reflected inward, forming different apartments or cells, like the transverse section of an orange, for holding the vitreous humor.

The *crystalline humor*, or *lens*, is situated behind the pupil, surrounded by the ciliary processes, and embedded in the front part of the vitreous, from which it is separated by the hyaloid membrane. The *capsule of the lens* is an elastic, transparent membrane which surrounds it. The lens is formed of concentric layers, the external being soft, the middle firmer, and the interior still firmer. The *canal of Petit* is a small triangular channel around the circumference of the lens.

THE OCULAR GROUP OF MUSCLES.—This group consists of seven:—1. *Levator palpabræ*, long, thin, and triangular, situated in the upper part of the orbit; *arises* from the upper margin of the optic foramen and sheath of the optic nerve; *inserted* into the upper border of the upper tarsal cartilage. 2. *Rectus superior*, *arising* with the preceding; *inserted* into the globe of the eye about three lines from the margin of the cornea. 3. *Rectus inferior*; *arises* from the inferior margin of the optic foramen and sheath of the optic nerve; *inserted* into the inferior surface of the globe near the margin of the cornea. 4. *Rectus internus*, a short, thick muscle; *arises* from the common tendon and the sheath of the optic nerve; *inserted* into the inner surface of the globe near the margin of the cornea. *Rectus externus*; *arises* from the common tendon, and from the margin of the optic foramen; *inserted* into the outer surface of the globe near the cornea. 6 *Obliquus superior*; *arises* from the margin of the optic foramen and sheath of the optic nerve; *inserted* into the sclerotic coat near the entrance of the optic nerve. 7. *Obliquus inferior*; *arises* from the inner margin of the superior maxillary bone; *inserted* into the outer and posterior part of the eyeball near the entrance of the optic nerve.

Fig. 5 is a view of the ocular group, taken from the outer side of the right orbit. 1. A small fragment of the sphenoid bone around the entrance of the optic nerve into the orbit. 2. Optic nerve. 3. Globe of the eye. 4. Levator palpabræ muscle. 5. Superior oblique. 6. Its cartilaginous pulley. 7. Its reflected tendon. 8. Inferior oblique. 9. Superior rectus. 10. Internal rectus, almost

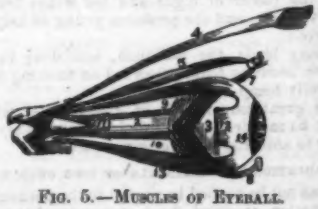


FIG. 5.—MUSCLES OF EYEBALL.

concealed by the optic nerve. 11. Parts of the external rectus, showing its two heads of origin. 12. Extremity of the external rectus at its insertion. 13. Inferior rectus. 14. The tunica albuginea, which is formed by the expansion of the tendon of the four recti muscles.

Uses.—The levator raises the upper eyelids; the four recti, when acting singly, pull the eyeball upward, downward, inward, and outward; the superior oblique rolls the globe inward and forward; the inferior oblique rolls the globe outward and backward.

Uses of the Structures.—The firm sclerotic coat gives shape and form to the eye, and protects its complicated and delicate tissues. The transparent cornea furnishes a medium for the transmission of the rays of light. The choroid supports the nutritive vessels, and by the black pigment of its posterior surface absorbs the scattered rays of light, that might otherwise confuse the image impressed on the retina. The iris regulates the quantity of light admitted through the pupil, by contracting when the rays are too strong, and expanding when the light is more feeble. The humors refract the rays so as to impress the object on the retina in the most favorable manner for distinct vision.

Appendages of the Eye.

These are the *eyebrows, eyelids, eyelashes, conjunctiva, caruncula lachrymalis*, and the *lachrymal apparatus*.

The *eyebrows*, called *supercilia*, are projecting arches of integument covered with short thick hairs, forming the upper boundary of the orbit of the eye.

The *eyelids*, called *palpebræ*, are valvular layers in front of the eye. The elliptical space between is divided into the *outer* and *inner canthus*. The inner canthus is prolonged into a triangular space toward the nose, which is called the *lacus lachrymalis*. The *lachrymal papilla* is a small angular projection at the commencement of the lacus lachrymalis on each side, each of which papilla has a small orifice at its apex, called *punctum lachrymale*, and constituting the commencement of the lachrymal canal. The thin, firm, fibro-cartilaginous bands supporting the edges of the eyelids are called the *tarsal cartilages;* in their internal surface are imbedded a number of secreting tubes or follicles, called the *Meibomian glands*.

The *eyelashes*, called *cilia*, are triple rows of long thick hairs, curling upward from the upper lid, and downward from the lower; an arrangement which prevents their interlacing each other.

The *conjunctiva* covers the anterior surface of the eye, and is so reflected on the lids as to form their inner layer. The duplicates formed between the globe and lids of the eye are called the *superior* and *inferior palpebral sinuses*.

The *caruncula lachrymalis* is a small reddish body occupying the lacus lachrymalis at the inner canthus. It is composed of an assemblage of mucous follicles, and secretes the whitish matter usually found at the inner angle of the eye. On the outer side of the caruncula is a fold of the conjunctiva, called *plica semilunaris;* this is the *membrana nictitans* in birds, and the rudiment of the third lid in animals.

The lachrymal apparatus consists of the *lachrymal gland with its excretory duct*, the *puncta lachrymalia*, the *lachrymal canals*, the *lachrymal sac*, and the *nasal duct*.

The *lachrymal gland* is situated at the outer and upper part of the orbit. It secretes the *tears*, which are ordinarily conveyed away by small ducts which run a short distance between the conjunctiva, and then open on its surface a little above the upper border of the tarsal cartilages. The *lachrymal canals* commence at the *puncta lachrymalia* and run inward to the lachrymal sac. The *superior* duct first ascends, then turning suddenly inward, forms an abrupt angle;

Fig. 6.—Appendages of the Eye.

Fig. 6 is a representation of the appendages of the eye. 1. The superior tarsal cartilage. 2. The lower border of the cartilage, on which are seen the openings of the Meibomian glands. 3. The inferior tarsal cartilage; along the upper border of this cartilage the openings of the Meibomian glands are likewise seen. 4. The lachrymal gland—its superior or orbital portion. 5. Its inferior or palpebral portion. 6. The lachrymal ducts. 7. The plica semilunaris. 8. The caruncula lachrymalis. 9. The puncta lachrymalia of the lachrymal canals. 10. The superior lachrymal canal. 11. The inferior lachrymal canal. 12. The lachrymal sac. 14. The dilatation of the nasal duct, where it opens into the inferior meatus of the nose. 15. The nasal duct.

the *inferior* duct, by descending, and then turning abruptly inward, forms a similar angle. The *lachrymal sac* is the upper extremity of the nasal duct. It consists of a mucous membrane covered by a fibrous expansion of the tendons of the orbicularis and tensor tarsi muscles. The *nasal duct* is a short canal, three fourths of an inch long, running downward, backward, and outward to the inferior meatus of the nose, terminating there in an enlarged orifice.

The Orbital Group of Muscles.—Three muscles:—1. *Orbicularis palpebrarum* (fig. 7), a sphincter or closing muscle, which surrounds the orbit and eyelids. 2. *Corrugator supercilii* (fig. 7), a narrow, pointed muscle, *arising* from the inner extremity of the superciliary ridge; *inserted* into the orbicularis palpebrarum. 3. *Tensor tarsi*, a very small muscle, *arising* from the orbital surface of the lachrymal bone; *inserted* by two slips into the lachrymal canals. The *use* of this group is to close the lids, draw the eyebrows downward and inward, and extend the lachrymal canals.

Fig. 7.—Muscles of Eyelids.

The *occipito frontalis* (fig. 7, A) descends over the forehead and is inserted into the eyebrow, where it mingles its fibers with the *orbicularis palpebrarum*. The action of the frontal portion of it is to raise or arch the eyebrows.

PORTRAIT OF D. S. MACGOWAN.

D. S. MACGOWAN.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

Here is a good specimen of the vital temperament. The body is well developed in all its parts—chest ample, heart and lungs large, circulation excellent, digestion good, and all the functions in high health. Such an organization ought to last, with proper care and treatment, to the good old age of a hundred years—and not feel old at that. But the gentleman is human, lives in sympathy with those by whom he is surrounded, and it would be strange did he not fall into the manners and customs of the people wherever he may chance to go. Still, with his stock of vitality, he can outlive his less fortunate neighbor, who has in his lamp less of the oil of life.

The head as well as the face is both high and broad. It is also *long on top*, giving more room for the brain allotted to the moral sentiments than is usual. And if true to his highest capabilities he will live a truly Christian life. Nearly all of the intellectual organs are full or large, and well balanced, the superior or upper portion predominating. Language, however, is *not* large—and those who may hear him speak will find that his words are few, but full of meaning. It would have been the wisest thing his parents or teacher could have done, had they developed this power more fully when he was a child. But we presume his parents were like other parents in this, viz., that they taught him to believe that "children were to be seen, and not heard." When will mothers come to learn that the right time to make orators is when the child is learning to talk? Our subject is by no means a bad or an indifferent talker, though we venture the statement, based on the organization, that he can write better than speak. Integrity is indicated by the great breadth across the top head, as well as by the lines—imperfectly represented by the engraver—running up into the forehead at the root of the nose. Cautiousness is not particularly large, and he would evince but little sense of fear. Firmness, Veneration, and Benevolence are all prominent, giving him determination, respect, and kindness. He is also witty and fond of fun, as evinced by Mirthfulness, or widening of the upper part of the forehead and the turning up of the outer angles of the mouth. We need not amplify; it is enough to state that it is a large-sized head, filled with a healthy brain, of good quality and texture, well sustained

by a good body, which has not been "used up" by dissipation, but which is in excellent condition, and bids fair to last, accidents excepted, into happy old age.

BIOGRAPHY.

The following sketch of what he has done, rather than what or who he is, may leave our readers still hungry to know more of him. The life of this man has been full of incident and interest, and the world should know more of it than we can give at present. A single additional item of personal history may set at rest any aspirations on the part of our lady readers, which the good-looking portrait may have awakened, namely, the gentleman is already married to a charming English lady. He is therefore *not* in the matrimonial market..

This gentleman, whose lectures on Japan, under the auspices of several of the noble and scientific gentlemen of the London and other European towns and cities as well as of New York, have secured the encomium of the daily press, is a native of New York. After pursuing a course of study in the hospitals in Paris, he went to China as a medical missionary, in which country he spent seventeen years in the exercise of his profession, conducting a hospital, publishing a newspaper, and traveling extensively over the empire. Still later he extended his travels to Japan, where he was enabled, from his knowledge of the language and literature of China, to make original and valuable observations. From the scientific treatises that he had published in China, on the electric telegraph and on cyclones, having been republished in Japan, the latter by the prince of Satzuma, he found on his arrival that he was not unknown in that country. His Chinese newspaper had also preceded him, and, as he had filled the office of American consul in China, he was permitted to hold intercourse with officials of the highest rank.

Dr. Macgowan's accounts of the Japanese are, on the whole, highly favorable, although he considers them as having been described by recent writers in too glowing colors. He thinks there are philological and other evidences indicative of the Japanese race being of the same stock as the aborigines of North America. They are less profound than the Chinese, having produced no original thinker, nor any system of philosophy or religion. They are braver than their continental neighbors, and will be found more prompt in resenting injuries; a tithe of the wrongs inflicted daily on the Chinese by foreigners would if perpetrated in Japan infuriate the entire race.

In his accounts of the sciences in Japan the lecturer states that the only scientific instrument that he was able to show to the Governor of Nagasaki that was new was the gyroscope. The instrument was immediately sent to the savans at Jeddo for examination, the more readily because the ingenious and inquisitive functionaries were informed that Western physicists were not agreed in their explanations of its mode of action. It was believed that the academicians of this capital would be able to settle this question.

As a field for Western commercial and manufacturing enterprise, Japan, in Dr. Macgowan's opinion, is full of promise, if considered apart from the obstacles which the government, chiefly on account of not unfounded fears of mischiefs likely to accrue from foreign intercourse, casts in the way of trade. He lays much stress on the injury to foreign not less than Japanese interests which is sure to follow the introduction of opium into those fair islands. In religious matters he regards them as highly tolerant, and not opposed to Christianity as a religion—they detest it only as inimical to their nationality. Proselytism is utterly impracticable, owing to the omniscience of the government through the system of espionage, which renders Japan what Dr. Macgowan styles a "model despotism." Yet missionaries, he says, ought to be sent to impart instruction on secular subjects, to dispel prejudice, and counteract the evil influences exerted by unscrupulous foreigners—influences wholly incompatible with healthful commerce. The lectures are illustrated by an extensive collection of curiosities.

Dr. Macgowan is not unknown to either the American or the British public. A small volume of his on "Medical Missions," originally published in New York, was republished many years ago in Edinburgh. A pamphlet of his on Chinese and Foreign Relations, published in Shanghai in 1857, contained much information of value to the negotiators of the treaties of Tien-Tsin, as the question was discussed from a Chinese point of view. He counseled the adoption of a system of passports as a protection to the Chinese against lawless foreigners. It was acted upon, and regarded as a concession, averting, it is believed, protracted hostilities after the capture of Tien-Tsin.

The Agricultural and Horticultural Societies of Europe and America have found in Dr. Macgowan an active coadjutor in their researches into Chinese botany and agriculture, and in their attempts at introducing Chinese plants into other countries. He was the first to describe the singular showers of sand to which the north of China is subject, and the first to call attention to the recent change of the bed of the Yellow River, and the discoverer of the magnificent eyre, or hare, of the Taien-Tang. Papers on those subjects, and various others—as on table-turning and spirit-rapping in China, on Chinese and Aztec plumagery, on the production of artificial pearls, on insect wax and vegetable tallow, etc., etc.—have been translated and published throughout Europe. Sir R Murchison, on taking the chair at one of the lectures at Willis' Rooms, London, stated that, "having presided over meetings of the Royal Geographical Society, and over sections of the British Association, when Dr. Macgowan gave the result of his observations on China and Japan, he could safely commend the lectures of his learned friend."

Dr. Macgowan had the honor of being presented to her Majesty Queen Victoria by the American Minister. Our portrait of the lecturer is from a photograph by Mr. Armstrong, Princess Street, Edinburgh, Scotland.

[There is a prospect of an expedition being fitted out, by some of the enterprising citizens, of our Atlantic States, to visit the islands of Japan, under the direction of Dr. Macgowan, with a view to introduce into this country such of the trees, plants, shrubs, fruits, and other productions as would be of advantage to us. When the plans for this shall be matured, we shall take pleasure in laying the same before our readers.

How would it do to make up a phrenological cabinet, to be composed of casts from the heads of our leading men, and send it to Japan, with a view of indoctrinating that people with these modern discoveries? Who will second this suggestion?—EDS.]

TUNE—MUSIC—SOUND.

EDUCATION AND TRAINING PHRENOLOGICALLY CONSIDERED.

No faculty has caused the phrenologist more trouble than that of Tune. He has made, in respect to it, more apparent mistakes than with any other; and some examiners, because they could not with much certainty pronounce upon this organ, have been led to doubt the correctness of its location. We are confident that the location of the organ is correct, and we are equally confident that the definition of the functions it performs has been too limited. There are, perhaps, several organs in this group which take cognizance of sound, but all of which are required to constitute musical appreciation.

DIFFERENT QUALITIES OF NOISE.

The primary element recognized by this faculty, or class of faculties, is noise, and music is noise; but noises differ in quality. Let a person rap with the knuckles on a tin pan, and then on a marble table, and again on a pine, and still again on a cherry table, and the sounds differ. Take a brass key and repeat the raps, and each varies from every other, and will vary correspondingly from the noises educed by the knuckles. Spat the hands, and we have one noise; bring the fists together, and we have another. The rough, rustling sound of woolen goods, the slippery yet semi-rough sound of worsted or bombazine dresses, are readily distinguished from the noise of rustling silks; and so we might go through all the category of mere noises—which lie entirely below the domain of musical sound—and the practiced ear will recognize differences in the ten thousand variations of noise. Who can not tell the tramping of a horse from that of an ox?—the heavy, grum grinding of loaded cart-wheels from the brisk, idle rattle of the same wheels when unloaded?—the graceful, cheerful sound of the light carriage, and the hard, sturdy sound of the lumber wagon? Livery stable keepers in a quiet village can tell in the evening which horse and wagon is returning when it is a quarter of a mile away; they know the step of every horse, the sound of every vehicle. The shepherd knows the voice of every sheep, as by practice, it is said, he also knows the countenance of each one.

MUSIC-DEAFNESS—COLOR-BLINDNESS.

To a limited extent, doubtless, the hearing power, or sense of noise, as possessed by some animals, equals that of man; and we fancy that the more musical the bird, though it has but a single song, the better sense of sound in general does it possess. As all sound must be brought to the mind through the hearing apparatus, of course that needs to be perfect, in order to the highest musical capability. But that the ear, so to speak, is not the faculty for judging of sounds, is evident from the fact that some persons partially deaf have a nice discrimination of such sounds as are strong enough to be heard at all, and also of music; while other persons, possessing the highest auditory sensibility, have no appreciation of music. Such persons are deaf to music. In like manner, some persons can see with great clearness, but have no appreciation of the difference in colors, and can not remember red, green, blue, yellow, and may therefore be called "color

blind;" and others, whose vision is comparatively poor, appreciate colors readily and enjoy them highly.

MUSICAL QUALITY OF NOISE.

Rising one step in the scale, we find persons who recognize not only, as we have described, the quality of noises, but also the musical quality of sound. A single note sounded by the voice or on a musical instrument pleases them; it is melodious, and they enjoy it, but they can not go in music any further than to appreciate melodiousness and distinctness of different sounds. Another class of persons seem to have another faculty, or a higher manifestation of the sense of sound, in the ability to appreciate the relation of sounds one to another, as the first, third, fifth, and eighth notes in the scale, and will sing plain tunes in unison with other voices, or alone; but introduce harmonies, and they are confused and rendered unhappy. Another class of persons possess all that these already mentioned have, with the added power or faculty to enjoy harmonies. We have found some persons who never would learn a tune nor play one, but on the piano or violin would work out by the hour all manner of delicious harmonies without introducing a single measure of consecutive music. Another class there is in whom the power to enjoy harmonies exists, with the ability to render them in what we call musical discourse. They learn tunes however complex, however many parts are combined, and can think each part through without hearing a sound, or can sing or play any part while all the rest are being played, or separately; but these persons can generally carry a part much better if all the other parts are being performed than they can carry their own part alone.

MUSICAL COMPOSITION.

Others again, possessing all that we have described, have the added power of musical creation or composition, which may, perhaps, be denominated the Philosophy of Music, as the reasoning organs comprehend the philosophy of intellectual subjects, and the perceptives and semi-perceptives gather and arrange facts, and appreciate the qualities and conditions of material things. The mere solo ballad singer is like one who has a good development of the perceptive and semi-perceptive intellect, while the one who can combine three or four forms of the ballad into a single grand discourse of music, and comprehend the philosophy of its combination, is the musical philosopher. There is but one man in a million who is really a philosopher on intellectual subjects, and perhaps but one man in a million who has power of high musical composition.

There are many orators, conversationalists, and writers—men who deal in facts, and narrative, and description; so there are many men who can take the compositions of others in music, and render them, though with various degrees of excellence. In Scotland, pupils in the better schools are instructed in musical composition, and not a few attain considerable facility in it.

PECULIAR DEVELOPMENTS.

We have observed that those persons who appreciate harmonies and incline to musical compositions, but are not practical musicians, and perhaps can not learn and remember tunes, are developed more in the organ of Tune high up toward Ideality and Constructiveness, which makes that part of the head to resemble, on a small scale, a bold upper forehead with a defective brow. In such persons, also, we often find a nice sense of sound in general. They are persons who can recognize every member of the family and many outside friends by the way they come up the steps, or by their manner of ringing the door-bell, wiping their feet upon the mat, or the way they open and shut doors and walk across the hall. Still, they can not learn tunes, though they generally express themselves greatly delighted when they are produced by others. We know several such who will have music boxes, or will secure in the family the presence of some person who can delight them with instrumental and vocal music, while any attempt on their own part to learn music would be futile.

JENNY LIND, SONTAG, THALBERG.

Nearly every eminent performer, who renders music practically, and brings its philosophy into practical realization, is developed not only in the upper part of the organ already mentioned, but the organ seems to extend downward toward the external angle of the brow, until it joins, or appears to mingle in, with the development of the perceptive group, which gives prominence to the lower part of the brow. Jenny Lind, Sontag, Jullien, Thalberg, D'Angri, are eminent examples of this form of development; and whoever will look at the bust of Jenny Lind, or at any good photograph or engraving of her, will find that upward and backward from the external angle of the eyebrow there is a boldness which makes the expression of her forehead and countenance look heavy. Instead of the organ, then, being the size of the end of one's finger, it seems to stretch downward and upward, joining all the practical faculties with all that is theoretical and esthetical; all that appreciates particulars with all that recognizes combinations and philosophies.

TALENT TO COMPOSE MUSIC.

Musical composition requires Constructiveness, and the organ of Tune should develop itself toward Constructiveness, so as to coalesce in magnetic sympathy. It requires also Ideality; these faculties should approach and coalesce, and we know of no eminent performer who is able to realize all the conceptions of the composer, and combine all that is practical in rendering music, who is not amply developed in that whole region; and the organ, or the fullness which indicates that tendency, seems to be spread over a distance three times larger than it is found in those in whom a single feature of the musical talent is evinced. We are not sure, but rather incline to think, that there may be three or four organs, or, at least, three or four methods of development of one organ, which give the various phases to musical talent, or, more strictly speaking, the sense of sound which we find in various individuals. Though there is difficulty in deciding, in all cases, the amount of talent, and its peculiar manifestation in this respect, as we before remarked, we feel certain that that portion of the brain is devoted to appreciating sounds in all their varieties, from mere noises to the highest musical harmonies.

ORATORS AND TALKERS.

Those, generally, who have the best development of what comprehensively we call Tune, have the best conversational voices. As orators, their voices fascinate, or are capable of expressing any sound which is born of the various other faculties. Whoever has Tune perfectly developed ought to be able to represent in his voice any passion which can be developed by his mind and disposition. Those who are capable of imitating, as actors, the voices of men and animals, generally have good musical talent.

CULTIVATION OF MUSIC.

This faculty should therefore be cultivated in the young. Those who are among sour, captious, hard people get a fierce growl or snarl in their voices, which becomes habitual. Those who are with persons having a cheerful, joyous, placable mind will learn to repeat the smooth, placid, sweet tones of voice. Culture is so potent in this matter, that a child with naturally a sweet disposition, by being trained up in a family unlike itself, with sour, morose dispositions, will learn to imitate the voice of those persons; and though its own soul may glow with affection and melt with love, the effect of the unfavorable training of others will be to mar its manifestations, and, as it were, throw a shadow over all its vocal efforts.

It is unfortunate to have an unmusical voice, and still more unfortunate to have one's training such as to render harsh and grating a voice naturally melodious and sweet, because in the training the dispositions are liable to become soured and morose, corresponding to the voice of those who impart such training.

TO THE LAKES,

OVER THE ERIE RAILWAY.

The morning sun gilded the steeples of New York as we took a seat with two friends in the Erie Railway train, at Long Dock, Jersey City, bound West. Our car was one of the latest pattern, with high back seats and modern methods of ventilation. With these improvements, and the broad gauge of this road, we found little fatigue and no annoyance from dust or impure air.

The first notable thing met with on this road is the tunnel under the Bergen Heights, a mile from the Hudson River. This is cut through the solid rock for seven eighths of a mile in extent. The sound of the whistles of two approaching trains in this dark, subterranean passage is calculated to remind one of things infernal, but, as there is a double track, there is no danger of collision, and one enjoys with rare zest that which otherwise would be a terror. Emerging from the tunnel, the marshy flats of the Hackensack and Passaic rivers stretch away nine miles toward Paterson, which is distinguished as a manufactory of locomotives, paper, etc. On we speed through Orange County, touching at Goshen and Middletown, thriving centers of a region widely noted for the abundance and excellence

of its butter and cheese. The land is high, rolling, and rich, and smiles under excellent culture.

Entering the valley of the Delaware River at the smart and thriving town of Port Jervis, 88 miles from New York, we wind up the mountainous and rocky gorge that forms the channel of that boisterous stream. The Delaware and Hudson Canal follows one bank, much of the way being sustained by a sloping wall alternating from twenty to fifty feet in height, washed at its base by the river; while the railroad, having had the second choice of position, was compelled to find its way along the opposite and less favorable bank. In many places, the mountains, with hardly sufficient soil to sustain bushes and trees enough to cover the battling cliffs, rise five or six hundred feet from the bed of the river at an angle of fifty or sixty degrees, and it was found necessary to excavate by blasting a road-bed in the mountain side, sometimes a hundred feet above the brawling stream below. This roadway, though startling and sublime to contemplate as we rush onward around the bold curves formed by the tortuous course of the river, is the most firm, and probably quite as safe as any other, portion of the road. Feeling a sense of security in passing over this grand and varied Alpine region, we had nothing to do but to enjoy the scenery as we rushed onward. After following up the Delaware for nearly a hundred miles, we leave it, passing the summit between the Delaware and Susquehanna rivers near a place called Deposit, 175 miles from New York. A few miles distance brings us into the valley of the Susquehanna, and in place of the wild and rocky scenery of the Delaware, the valley is broader, and the embosoming hills rise with a gentle yet majestic swell, covered, so far as the eye can reach, with arable farms or thrifty timber. As we are descending into this valley we meet with one of the wonders of this route. It is the Starucca bridge, a structure of stone over a creek and valley by that name. It consists of seventeen spans of fifty feet each. Its total length is 1,038 feet, and is ninety feet high, and much resembles the celebrated High Bridge at Harlem, over which the Croton water passes to New York. At Great Bend, where the road deflects into the State of Pennsylvania, the Delaware and Lackawanna Railroad makes a junction with the Erie, tapping the vast coal region. Fourteen miles farther on we reach the beautiful town of Binghamton, the county seat of Broome County, N. Y., and the home of Hon. Daniel S. Dickinson. The Syracuse Railroad here connects with the Erie. In this town is located Dr. O. V. Thayer's Water-Cure Establishment, which for several years has been in successful operation. The Inebriate Asylum, now about being completed, is a splendid structure of stone, standing east of the town, on a beautiful and commanding eminence facing west. As it will soon be opened for the reception of patients, we trust it will more than realize the hopes of the beneficence which called it into being. We can not help thinking that this is only nipping at the branches instead of laying the ax at the root of the tree of intemperance.

On the top of a hill some hundreds of feet above the valley in which Binghamton reposes, and about two miles south-west of the town, Professor S. F. B. Morse has built a residence. For the recovery of his health, shattered by labor and anxiety in inventing and developing the telegraph, he located on this dry hill-top, and built a house without mortar, having ceiled, canvased, and papered his rooms. To still further avoid dampness, he allows no tree or shrub to grow on his premises more than ten feet high, and very few even of such; and we are happy to learn that his health has greatly improved during his residence there. The mansion, standing on the top of the highest hill in that region, can be seen for many miles. The Professor was an artist in his earlier years. He now has a landscape picture in this lovely valley of the Susquehanna, stretching east and west, varying with every season of the year, and having the arching heavens and the richly-teeming hillsides for a frame. Indeed, from Port Jervis to Elmira, a distance of two hundred miles, the line of the Erie Railway is one grand succession of pictures worthy the study and the canvas of Cole or Church. Only to think of a hundred miles of highlands as bold and picturesque as those of the Hudson, and then a hundred miles dotted with beautiful towns, checkered with excellent farms, and bordered by majestic hills, with a rolling river sweeping gracefully between them. If these scenes do not make pictures fit for the eye of the connoisseur or for the pencil, commend us to those that do.

Leaving the east branch of the Susquehanna we ascend the Chemung River, which forms the west branch, and rises in the highlands that divide the waters of the Chesapeake from those of the Gennessee and St. Lawrence. We soon cross the territory drained by the tributaries of the Genesee, and pass the highest summit on the Erie Railway, which is 2,500 feet above tide water, and descend into the Valley of the Alleghany, whose waters find ultimate outlet by the Mississippi. Throughout the valleys of all these streams, lumbering is extensively carried on, and in high stages of water it is rafted to a market. This is eminently true on the Alleghany, which region, prior to the construction of the Erie Railway, was comparatively a wilderness. The Cattaraugus Indians have a government reservation extending forty miles in length and one mile in width, equally divided by the river, and this takes in about all the valley-land so far as it extends. It is covered with valuable pine and other timber. The Indians live in rude cabins, and rent their land to white men, who carry on lumbering largely.

Owego, the capital of Tioga County, 236 miles from New York, and about half way to the lake, is a handsome place, and its scenery up and down the Susquehanna Valley is very charming. Elmira, thirty-seven miles farther on, beautiful in itself, and located in the same lovely valley, contains the Female College, which was originated, planned, and carried into operation by the labors and influence of Mrs. Sackett. Here also is situated Dr. Gleason's Water-Cure Establishment, a mile or more north of the town, on the southern slope of a handsome hill. This institution has obtained a favorable reputation.

Corning, 290 miles from New York, is a new but thriving and handsome town. The Chemung Canal, reaching as far up as here, affords excellent means for heavy transportation through the Seneca Lake to the Erie Canal, and thus by the Hudson River to the ocean. This place is handsomely laid out on the hill side and bottom land, contains an arsenal, several churches, and many beautiful residences, and several large hotels. The Dickinson House, where we spent a night, is presided over by Almeron Field, who "knows how to keep a hotel." He remembers and calls everybody by name after the first introduction; and his wife, whom we suspect knows something of hotel business, has an idea that white linen sheets are more acceptable to visitors than yellow cotton ones, and we quite agree with her.

From Corning we made a divergence up the Buffalo and Erie Railway 46 miles to Wayland, thence five miles to Dr. Jackson's Hygienic and Water-Cure Institute, at Dansville. The village contains about 4,000 inhabitants, is laid out regularly, and is rather handsomely built. It is situated in a level valley, a spur of the Genesee, which was once evidently a lake bed. On each side of this charming valley, which is about a mile in width, there rises a range of hills several hundred feet in height, which, though steep, are so smooth that they can be cultivated to their very tops. The "Home on the Hillside," as Dr. Jackson and his associates call their establishment, is situated nearly two hundred feet above the town, yet is so near as to overlook it like a map. Though the house is high up, the hill back of the buildings rises several hundred feet more, which far up is cultivated to lawn and crowned with a handsome forest. The patients seemed hopeful and happy, and if their cases are not incurable, this is an excellent place for them to recover health, and especially to learn how to preserve it. We accepted an invitation to give a lecture on Phrenology in their parlor lecture-room, and had an audience of nearly 200 persons. Re-returning to Corning, thence *via* Hornellsville to Buffalo, on the Buffalo branch of the Erie Railroad, we pass over the celebrated Portage bridge, which spans a stream and ravine. It is the largest wooden structure of the kind in the world, being no less than 800 feet in length, and 234 feet in height.

Spending twelve hours in Buffalo, we had time to note its growth, prosperity, and lake commerce; and by the Lake Shore road, distance forty miles, we reached Dunkirk, the western terminus of the Erie Railroad. This is a brisk town, on the shore of Lake Erie, 459 miles from New York. It has a harbor, and before the Lake Shore road was built, it was the point of departure by steamers, with freight and passengers, for the West. Here is a very large machine shop for the building and repairing of locomotives, and everything else in that line connected with the road. We went through the establishment, and were politely shown all its interesting processes.

Returning to New York, we took the 6 A.M. train at Dunkirk, and had a full view by daylight of everything which the grand and varied scenery could offer so far east as Elmira, and as we saw by daylight everything east of that town in going west, we had a view by daylight of every mile of the route.

We feel the better and the wiser for the trip. All who desire to see mountains, rocks, ravines, rivers, cascades, valleys, bridges, beauty, and wealth, can do so abundantly, cheaply, and easily by taking a trip from New York to Dunkirk or Buffalo on the New York and Erie Railway.

THE PHONOGRAPHIC FRATERNITY.—The Oshawa *Vindicator*, whose editor is a phonographer, says:

"The phonographers of this country, indeed of the whole world, are constituted a great brotherhood by means of a fraternal correspondence which Phonography renders easy, attractive, and useful. Phonography is known to have important uses and power in intellectual, social, and moral directions. For while it becomes a means of livelihood for a few, it perpetually and faithfully serves all who learn it: it ennobles the most degraded who may make its acquaintance from mere curiosity; its sweet beauties refine the tastes; it impels to knowledge and aids in its acquisition, retention, and diffusion; and it develops beautiful friendships among its thousands of lovers, and thus insures numerous and varied kindly services and genial influences which will prove the most fortunate events in the life of many a member of this brotherhood."

[How long will it take to learn it? When its great value is considered, we say but a very short time. A few weeks' time—say one or two hours a day—is enough to get a knowledge of its principles, and a few months' practice, to write it with facility. This is the very best field now open to young men who would work into useful and respectable positions.]

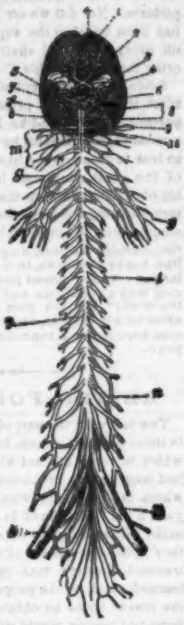
THE CEREBELLUM.

BY J. H.

ACTION is a law of life. Man is placed in this world to act, and has no choice in the matter. The curse originally laid upon him by God compels him to sustain life by the sweat of his brow. This curse, Christianity turns into a blessing; but labor is no less the law of existence. Phrenology and physiology show where the forces which produce action reside, and what are the centralizing and restraining powers by means of which this action should be regulated.

The coronal and posterior sections of the brain or groups of organs have each its special restraining power. The spiritual faculties or sentiments have Steadfastness and Righteousness to hold them to their legitimate sphere of activity; and the propensities have Cautiousness and Secretiveness. The intellectual forces of our mental nature are, in their general character, distributive; but Individuality and Eventuality furnish a *centralizing* element, which serves as the restraining influence of the intellect, controlling the mind by fixing the attention upon some particular subject or event. Without these restraining and centralizing forces man would be a creature of circumstances, carried away by every impulse of passion or feeling. With them, his actions are controlled, in a greater or less degree, according to the power of the restraining or centralizing influence. With the spiritual faculties predominating, he is restrained by the spiritual dispositions of Steadfastness and Righteousness; when the intellect leads, he is governed and directed, in the proper order, by Individuality and Eventuality, which exercise a restraining influence by causing a pre-existing attention; with the propensities in the ascendency, he is held back by Secretiveness and Cautiousness as acted upon by wealth and the fear of its loss. The latter influence most generally prevails at present in the world. Nearly all the great men of the present time predominate in Secretiveness and Cautiousness; and they are great because they have the ability to restrain themselves—in other words, because they possess *tact*, or the skill to take advantage of circumstances.

Labor, in the present order of things in the world, is measured and controlled by capital; and even morality is subordinated to money. The capitalists are the real rulers of the nations, at present, and not the kings or the people. Christianity, by the aid of Phrenology, must subordinate this power to God, or there can be no true reform and no true progress, as there never has been any except what has come through the good-will of God toward men. Until Christ's kingdom shall have been established on the earth, "the world, the flesh, and the devil" will stand secure in their power and influence.



BRAIN AND SPINAL CORD.

It becomes necessary here to speak more particularly of the structure and functions of the lesser brain (cerebellum), as the old anatomists called it, in which are stored the vital juices—the sap, as it were, of the tree of life—which supply power to both body and brain.

The cerebellum was found by Dr. Spurzheim to comprise, on an average, one-seventh, by weight, of the entire brain. Looking at it phrenologically, then, and considering size (all other things being equal), the measure of power, we perceive at once that its influence must necessarily be prodigious. Its situation (see the accompanying cut), in close connection with the spinal cord, and, through that and its complicated system of nerves, with the whole body, together with the great amount of blood distributed to it by its tree-like ramifications of arterial tubes, furnish the most conclusive anatomical and physiological reasons for its activity, and the close inter-relations which exist between it and the entire physical system. As a grand reservoir of the *vis animæ* or vital spirit, destined to animate the whole man, and to be drawn upon by both body and brain, it could not be more admirably located, or more perfect in its nervous and arterial connections. Unerring wisdom is here, as in all other parts of the body, wonderfully manifest.

In the cerebellum—essentially a distinct brain, though of course closely connected with the cerebrum—God has appointed the abode of the reproductive powers of our nature. This fact science has demonstrated beyond the possibility of a doubt, and it is safe to presume that none of our readers will call it in question. The Creator has given this organ its size, its location, and its tremendous influence for a purpose; and has made it a condition of man's life that he shall "increase, multiply, and replenish the earth."

Like any other part of our nature, the reproductive powers are liable to perversion and abuse; the consequences of which are terrible in proportion to their strength, rapidly exhausting the powers both of mind and body. They must be restrained and balanced. How can this be done?

No power now generally in operation in the world, or in the individual man, is capable of properly restraining the reproductive faculty and giving it the godly direction that it was originally designed to have. The Jewish law recognized it, on a material basis, in the rite of circumcision, which, while being the sign of a covenant, was also a test of virility or vital stamina. In Christianity this rite is spiritualized in the sacrament of Baptism; and it is in Christianity alone that the higher law governing the action of the generative forces is laid down. Going far beyond the superficial and material morality of the old religions, Christ declared that whoever looketh at a woman to lust after her, committeth adultery with her in his heart. This spiritual law, which goes behind the act and calls men to account for the thoughts of the heart, can only be obeyed by spiritually-minded men and women, living under Christian influences. There is an anatomical reason for the fact that so much sin is committed or incited through the eye. The optic nerve furnishes close and direct connection between the organ of sight and the cerebellum (see cut of the brain and its nervous connection in the last number), and causes an immediate reciprocal action between them. The sight of any object tending to influence the passion of sexual love excites the cerebellum, and this excitement reacts to give a peculiar softness and luster to the eye. The intercourse of the sexes, in fashionable and general society, excites and gives license to the amative propensity. The cerebellum being a reservoir of vital force, communicating with the whole system, but acting most directly upon the cerebellar mass itself, individuals who possess the most of this vital force or energy are in the greatest danger, all other things being equal, of committing sin.

It is on account of the influence of woman, in her sexual character, that spiritually-minded men fail to make the impression that they otherwise would, by their teachings. This is particularly true in this country, where man's life is centered in the circles presided over by woman, rather than in the kingdom of God.

The ancient churches, in regulating the seating of men and women, always separated them, placing the men on one side and the women on the other; and, in old times, even partitions were constructed so that they could not see each other during worship. The Methodists formerly separated the sexes in their meetings; and the Shakers do the same at the present day.

The organ of which we are speaking is generally considered as being placed under the guardianship of society; but society fails most sadly in fulfilling its trust. It never adequately protects the weaker sex, and, in some European countries, even licenses what is not only a sin against God, but an outrage on woman, and a violation of passive nature and the organic laws.

The only restraining power which has ever proved, or ever can prove, at all adequate to control the generative forces residing in the cerebellum, and give them their true direction, as originally appointed by God, is found in the spiritual disposition, awakened by the Holy Spirit and strengthened from on high; and here, by the aid of Phrenology, we see the reason why it is at the age of puberty, when the functions of reproductive life are designed first to manifest themselves, that the spiritual part of our nature is also first awakened or made capable of its proper action. With the increased vital power and the need of restraint come the balancing forces required. When the whole social nature is aroused, and the sexes demand the fulfillment of their destiny, then should come the actual help of God's spirit in the heart, without which men are left to become the victims of a power (controlled by the Devil) which their unaided strength is impotent to resist. In proof of this fact, look at the present condition of the world in reference to the action of this organ. See how the greater part of mankind are subject to its domination, especially in heathendom! The Mormons in Utah, going back to polygamy, furnish a noted example of unrestrained lasciviousness, and of the controlling power of the forces residing in the cerebellum.

The City.

ALL ALIVE.—At this writing, New York is as busy as a bee-hive. Our hotels are filled to overflowing, and the streets will "grow no grass" *this* year. Railway cars, omnibuses, and other carriages are well patronized; the dining saloons are doing a custom-house trade in eatables and drinkables, while the merchants are "calculating" and making up orders for fall trade. The bankers and the brokers are counting their "currency," and the Wall Street Jews are counting their hoarded gold, hoping for a further advance. May they realize the wishes of every loyal citizen—namely, an end to the war, and a just retribution to those who speculate on the necessities of the people. But let them hold their gold and their nickel; more can be "dug up," and will be. We can produce from our gold-fields more than a million a week, and this is more than those money changers can absorb. We have no fears for our currency, nor for the government credit while the people remain true and united.

At the Spring "Trade Sales," books sold largely, and at good prices. Paper is too high, however, for publishers to print "trash," or to experiment with untried authors. The prospects for the future are improving, and we are confident that a large demand for good books will be made in the fall.

Mechanics and manufacturers are pushed with work, and the farmers are putting the "best foot forward" to secure good crops. The "horse-powers" will be largely used in mowing and reaping, for manual labor will be comparatively scarce. Boys, girls, and women—especially in the West—will be called on to "lend a hand" in securing the golden grain. It will enrich their complexions as well as their pockets, and not spoil them for wives or mothers. Indeed, a little out-door life would send the blood coursing through the veins of the "pale-faces" to some purpose. Girls, try it. The boys will work all the more vigorously for your presence in the field. This is no time for fashionable decoration nor flirtation. "Now's the day, and now's the hour" for earnest effort. Industry, energy, and economy are demanded of us all, and that man or woman who neglects to "put shoulder to the wheel" and aid the nation, is no patriot. Let no one say, "I can't." Let *every one* say, "I'LL TRY." The incompetent and the timid must stand ASIDE or be trampled under foot, for the great, the good, and the immortal are "marching on." With the heart in the right place, animated by the right spirit, we shall triumph over all difficulties, yea, even over death, hell, and the grave.

Aid the dawning, Tongue and Pen!
Aid it, hopes of honest men!
Aid it, Paper, aid it, Type!
Aid it, for the hour is ripe—
And our earnest must not slacken
Into play.
Men of Thought and Men of Action,
CLEAR THE WAY.

THE HYGEIAN HOME.—Dr. TRALL has recently become proprietor of the "Living Springs Health Institution" of Dr. SMITH, situated at Wernersville, near Reading, Pa. The "Home" is located on the eastern slope of Cushion Mountain, overlooking the rich and beautiful Lebanon Valley, presenting scenery consisting of mountain, hill, valley and villages, rarely equaled. The buildings are extensive, and well adapted to accommodate a large number of patients.

PORTRAIT OF DANIEL WEBSTER.—In a former number we called attention to a new style of cabinet portraits in oil, by Mr. E. C. Middleton, of Cincinnati, Ohio. Sample copies of General and Lady Washington were among the first we had seen; and we were so thoroughly impressed with their rare excellence, that we ventured to predict an extensive demand for those pictures. Nor did we err in that prediction. The demand has been equal to the supply, and promises to continue till every household shall declare its patriotism by honoring the Father of his Country with a place on its walls.

Since then, the ingenious artist has brought out, in the same size, style, and price, a most beautiful and life-like portrait of the "God-like Daniel." On viewing this picture one almost fancies he can hear him say, "I still live," so true to nature is the likeness. Having the modeled bust of the great statesman in our collection, which shows his phrenology, we are most happy to add this vivid picture, showing the Physiology, Physiognomy, and Temperaments, with the massive brow, the large, deep, dark eye, the conspicuous nose, ample chin, rolling and expressive lips, heavy eyebrows, thin dark hair, touched with gray, large neck, and almost ponderous chest; dressed in a blue coat with gilt buttons, and buff waistcoat, he looks "for all the world" like the man he was. We congratulate the artist on his success, and the public on the fact that they may here obtain a beautiful work of art at a very moderate price.

RELIEF FOR THE IRISH.

THE desire on the part of thousands of the Irish to come to these shores is almost beyond belief, but the means by which to come are not within their reach. Young men, just coming into manhood, who have barely enough on which to subsist, and who have no hope for anything beyond a life "from hand to mouth" at home, are willing to make any sacrifice to obtain passage to America, where they could get plenty of work and good pay. Having traveled through that interesting island, and having learned much of the people, the writer is satisfied that if the means could be obtained, full one half of the young bone and muscle would quickly wend their way hither, if a low-priced passage could be secured. At present they are occupied on the estates of the lords and nobles, some for a shilling a day, and others for still less, with a miserable pittance doled out to them, partly as compensation for services, and partly as gratuities, simply enough to barely keep them from actual nakedness and starvation. They have ambition, with strong desires to do something for themselves and for the world, but circumstances over which they have no control seem to hold them where they are, in miserable subjection. Those more advanced in years, broken down by toil or dissipation, of course have no hope of relief; but to the thousands of young men and women, America affords the brightest prospects. Here, on our public works, on farms or gardens, on river, rail, or lake; in ship-yards, factories, work-shops, stores, or hotels; in hundreds of places their services would be in constant demand, at remunerative prices. They want to come, and an evidence of this is seen in the case of nearly every steamer from the Irish ports bound to America. A single illustration will suffice. A few days ago, on the departure of the steamer "City of Glasgow" from Cork for New York, there were no less than twenty-six "stow-aways" found on board, concealed in boxes, coal-bunkers, etc. After the ship had left port, and had been two or three days at sea, these "stow-aways" made their appearance on deck and in the steerage, begging for bread and water with which to satisfy the cravings of nature. Who and what are the "stow-aways?"—simply young men with living souls in their bodies, who hope, by these means, to reach our shores, where their prospects for self-support would be improved. Of course the passengers and crew supplied them with the means of preserving their lives; but what was their fate on reaching New York? They were immediately transferred to the steamer "City of Washington" of the same line, then on her return trip, bound for Cork, and were forced to return to their unhappy country, and left in their former helpless condition. They begged and supplicated for the privilege of going into any kind of service, either civil or military, offering to give their first earnings to the ship's owners to pay their passage out. But no, their appeals were in vain. The British authorities want these men for their armies, and they are unwilling to have them become citizens of the United States. The proprietors of the ships give their officers orders to return all these young men who thus obtain passage to this country. Sometimes as many as forty or fifty manage to conceal themselves on shipboard, notwithstanding the vigilance of the officers, and only make their appearance on board when driven by starvation to come out of their hiding places. We presume there is not a ship leaving an Irish port without bringing more or less of these "stow-aways." It is true they enjoy—or suffer—the passage to and from our shores, and their eyes are gladdened at the sight of the New World, but only to be quickly returned to their unwelcome home. It is painful to contemplate this condition of things. Why can not the steamship companies be induced to take the obligation of employers, and permit these young men to go into service? They would do anything—work in shop, factory, or on a farm, go into our army, or navy, and give the first of their earnings to pay their passage out. We publish these facts, hoping it may elicit the attention of those in authority here, who will undertake to receive and care for these young runaways, many of whom are bright, intelligent, and industrious, but devoid of any means of support at home, all the avenues of industry being full to overflowing. We confess to the deepest sympathy for this class of people, who are thus driven to seek relief by these means. May God in his wisdom indicate some way by which they may be relieved and put to better use than to become paupers, vagabonds, and criminals, under their present benignant British rule.

Since writing the above, we find the following, in one of our daily morning papers, bearing on the subject:

CASE OF ALLEGED ABDUCTION—FATAL RESULTS OF THE ATTEMPT.—Thomas Burke and Bartholomew McCarty appeared before Justice Dodge yesterday, to complain against Owen Gill, master of the Liverpool steamship Edinburgh, for an attempted abduction. Burke and McCarthy, together with a friend of theirs named Jeremiah Murphy, all residents of Liverpool [evidently young Irishmen], secreted themselves on board the steamer at Liverpool, and were not discovered until the vessel was out to sea. There was no alternative but to bring them on, and they state they were told to sign certain papers on the ship or they would be compelled, upon arriving in America, to join the rebel army. When the vessel reached New York, one of them was allowed to go on shore, but the other two were kept confined at hard work on the ship. Their companion learning they were confined, returned to the vessel to intercede for them, but was himself taken as well, and all three kept confined until the vessel was ready for sea, when they were taken out as seamen. Upon arriving at Sandy Hook [the Narrows, where the North River empties into the ocean], they all jumped overboard. Jeremiah Murphy was drowned, but Burke and McCarthy were rescued and made complaint, the vessel was brought back, and the master, Owen Gill, arrested in Wall Street, yesterday, by Officer Cummings of the lower police court. Justice Dodge held him to bail in the sum of $1,000 on each complaint, which amount was promptly furnished by Mr. Frederick Schuchardt, of 294 Fifth Avenue.

[Pretty good evidence of the truth of our statement, when they thus venture life itself in the struggle for liberty, and one of the three finds it only in the spirit-land. But the matter is now before our readers. Who will undertake to act in behalf of the sufferers? Reader, what is your duty in the premises?]

AN INDIAN SKULL.—Mr. W. H. Hicks, of Rockaway, Long Island, N. Y., has presented, for exhibition in our cabinet, a skull supposed to have belonged to one of the aborigines, which was recently disinterred at the place named above. It is strongly marked, and bears a close resemblance to those of other tribes, save in two respects—viz., in Veneration, which is only moderately developed, and in being not so wide at Destructiveness as is usual. Conscientiousness is sadly deficient, and the moral group is small.

At a future time we shall have occasion to obtain drawings of this specimen, to contrast with that of others. We commend visitors to observe this interesting addition to our large collection of native crania.

THE VALUE OF PATENT RIGHTS may be inferred by reading the biographical sketch of Mr. Hubbell in our present number. This should be an encouragement, to awaken and call out the inventive powers of our people. The loss of so many laborers from the ordinary fields of industry will be severely felt for years to come, and we must try to do by mechanical means what would otherwise be done by hand labor. The field for profitable invention was never before more ample. Reader, can you not suggest some useful improvement in this direction? Suppose you try it, and thus benefit the world and enrich yourself.

A BOXER—HIS PHYSIOGNOMY.—The *Tribune* thus describes the personal appearance of the present champion of the prize ring, who recently fought his antagonist 67 rounds in one hour and ten minutes:

Joe Coburn is a well-built man, about 30 years of age, of ordinary size and stature. His hair is closely cropped, forehead rather narrow and retreating, eyes dark and piercing, and nose hooked like the bill of an eagle. The general expression of his countenance is not indicative of combativeness. Few would select him as the formidable fighter that he is, but he mastered his art and educated his body for the severe ordeal through which he chose to pass.

We beg to differ from our cotemporary in his conclusions, and think we see very palpable indications of both combativeness and destructiveness in that eagle nose and piercing eye.

YOUR LOCAL PRESS.—It is the pride of Americans that in proportion to our population we have more than double the number of newspapers of any other country in the world. This is fitly regarded as an evidence of the higher intelligence of our people. It is not claimed that our first scholars are better educated than are those of the Old World; but it *is* claimed that the great body of our people are more intelligent than are the working classes of Europe; and if this newspaper press is not the cause, it is an evidence of the fact. In ordinary times newspapers are cheaper here than there, and every family not on the list of paupers may enjoy its weekly visits; and we do know that families in which the paper is a regular visitor, are more intelligent, virtuous, and respectable than they would be without it. Hence we urge upon all readers to "support your local paper;" do not let "hard times," the war, nor the high price of paper cause a suspension of its regular issue; better do without some *luxury* than this *necessity*. Pay the printer as you would your school-teacher, your preacher, or your physician. If you *must* drop *either*, drop your tea, your coffee, or your tobacco; but do not drop your local paper. Are you poor? Then save the amount from off your back, and put it into your head.

QUESTIONS OF "GENERAL INTEREST" *will be answered in this department. We have no space to gratify mere idle curiosity. Questions of personal interest will be promptly answered by letter. If questions be brief, and distinctly stated, we will try to respond in the "next number." Your "*BEST THOUGHTS" *solicited.*

STAMMERING.—J. R. W. asks for a remedy for this infirmity. Who will respond?

ORIGIN OF MIND—MAN AND ANIMALS.—A correspondent sends us the following, cut from a Dundee (Scottish) newspaper, for insertion in the AMERICAN PHRENOLOGICAL JOURNAL. The writer says: Phrenologists regard the mind as simple, and that its substance or essence is unknown. "Mind, with all its faculties and functions, has existed since the creation, and will exist till the human race shall become extinct; and no opinion of man, concerning the cause of its phenomena, can have the least influence over that cause itself." "When we inquire into the qualities, we find the thinking power in man to differ, not only in *degree*, but in *kind*, from that of the lower animals. He possesses moral sentiments, religious emotions, faculties of investigation and combination, of analysis, induction, which are denied to them. We are entitled, then, by a legitimate exercise of *reflection*, to conclude that he is designed for another and a higher destiny than that which is allowed to them."

SLANDER!—Who is "*Dr. Sims*," lecturer on Phrenology, in Canada? We have received several communications in regard to this person, who is said to take our name in vain, and to slander us, and are requested to state what we know of him. In reply, we can only say, we have not the pleasure of his acquaintance. We can not undertake to keep watch of, and expose all the impostors who may strut into places which they disgrace; we must leave them to be dealt with by the public, on whom they impose. Our phrenological friends in Canada and other places will be able to "take the measure" of these impostors at first sight.

COMPLEXION — PRETENSION. — A man, called Dr. ——, lectured on Phrenology in this town, Chatham Center, Ohio, about two years ago, professing to be able to tell, when blindfolded, the complexion and color of a person's hair, and I believe so far as he tried, succeeded. The question is this: Have you a rule in Phrenology by which you can tell the complexion and color of *any* person's hair?

No. Nor is this the only absurd and ridiculous claim set up by ignorant pretenders, who may be only good at guessing. When a person can not give you a reason for his statements, count them as worthless. Phrenology needs weeding of these unfounded claims.

F. B. writes from Chagrin Falls, Ohio, as follows: By placing a man upon his back, elevated at a convenient height for raising, and forming a circle—four persons—each person placing one finger under the person to be raised, all five of the persons with their lungs fully inflated, begin to throw out their breath, all acting in perfect harmony, the man is raised as high as they can reach, without scarcely any effort, and when the breath is exhausted, the man drops like a dead weight. The question is, by what power or law is so much weight raised by so little mechanic power?

2d. As every part and parcel of man has its peculiar law of identity, forming language by which we may read his history and character, may we not apply the same rule to all matter?

1. We publish this absurd statement partly because it has obtained such general credence among the unthinking, and would suggest, that the experiment be tried on the next individual who proposes it. 2. Yes.

D. F., of Budore, Ireland, asks the cause of impediment in speech, and whether it indicates any mental defect. We find in most stammerers a highly-wrought mental temperament, with the emotions and feelings predominating, and the organ of language either moderate or small. We regard it, therefore, as an effect caused by these conditions. It may be overcome by modifying the temperaments, reducing the mental and increasing the vital, and by allowing the mind to rest in a passive state.

NO SOUL!—H. R, writing from Memphis, states that he had doubts in regard to the existence of the soul, before reading the present volume of the PHRENOLOGICAL JOURNAL. He is now most anxious for all the evidence on the subject. Nor is he alone, either, in his skepticism, or in his desire for "more light." We feel the responsibility of our position, and shall—kind Providence permitting—try to do our duty in giving the *scientific* as well as the Scriptural evidences of the fact.

REMOVING SURPLUS HAIR.—Is there any known specific means for the effectual removal of superfluous hair from a person, without injury to the skin, and if so, what is it, and where obtained?

No; there is no such means known to man, except by the shears. As well attempt to remove the finger-nails, or stop their growth, as that of the hair.

Also, can you tell who was the author of the "Vestiges of the Natural History of Creation?"

It has been ascribed to Mr. William Chambers, of Edinburgh, but he denied it. Others have attributed its authorship to Mr. George Combe, but the real author is not known to the public.

EARLY DEATH OF PRECOCIOUS CHILDREN.—S. A. K. sends us a beautiful poem, of which we publish only two stanzas, corroborating doctrines which we have been teaching for many years, namely, that precocity was an indication of premature decay. There are various causes for this. Parents who are built on the high-pressure principle, stimulating themselves with tea, coffee, tobacco, or liquors, reading exciting stories, and taking little or no time for bodily rest or recreation, come to be parents of children who can not live long in the world, children who have more brain in proportion than body. They are merely hot-house plants, which can not survive the blasts of the winter winds nor the heat of a summer's sun. We sympathize with the mourning parents, and venture these remarks simply as suggestions to others, for we are convinced that the laws of physiology must be observed, or the consequences will be fatal, as in the present case.

The writer of the poem will excuse us for making these suggestions in connection with the verses.

ON THE DEATH OF H. E. K.

Thou can'st never be forgotten
In the home thy smile made bright;
We miss thy prattling bird like voice,
Thy little footsteps light.
And oh! the agony of grief
With which our hearts are wild,
May never find relief on earth,
Our lost and angel child.

They said thou wert too beautiful,
Too prematurely wise,
That on thy glorious brow was set
The signet of the skies.
And early was the doom fulfilled,
And all our proud hopes riven;
But the sweet star gone down on life,
Shines brighter now in heaven.

A STUDENT OF PHRENOLOGY sends us a paragraph cut from the *Religious Telescope* to the effect that a "minister of the Gospel" had written an article on "mapping out character," reflecting on a phrenologist who had testified to the integrity of a bank officer who afterwards proved a defaulter. In reply, all we have to say is this—viz.: It is quite probable that the examiner—who has no connection with this office, and for whose statements we are not at all responsible—found a well-developed moral brain. But it is also probable, supposing the statement to be true, that the bank man had *perverted* his sense of justice and had fallen into temptation. It does not follow, as a matter of course, that even a "minister of the Gospel" will continue to tell the truth, remain a saint, or save his own soul. For we read of "fallen angels," and who knows but this may be one? "Try the spirits." But far be it from us to condemn the innocent, or to bolster up an impostor, be he in or out of our profession.

CHARACTER FROM THE HAND-WRITING—A. C. L. —No; we do not pretend to delineate character from the hand-writing. We can "guess" as well as others, and may sometimes hit the leading traits by this means, but it is not reliable. Send us your *carte de visite*, and we can judge of the temperaments, the general conformation of body, brain, and features, but nothing satisfactory by the hand-writing alone.

MUSIC, MICROSCOPES, AND DIGESTION.—J. H. is interested in this department of the JOURNAL, and wishes "more knotty" questions were put. He improves the opportunity by submitting the following:

Would it assist the cultivation of the organ of tune in children or adults to frequently hear music?

Ans. Certainly.

Do you think it would aid digestion to have music at meal times?

Only in this, that one would not be likely to eat so fast, and what was eaten would be more thoroughly masticated; but it is not the function of music to digest food.

And would our sleep be likely to be more refreshing if commenced soon after hearing an enlivening tune? At what price could you procure one of those small musical instruments, propelled by a spring, that would play say four or five tunes? [From $5 to $20.] Please to describe the 36-inch telescope mentioned in *Life Illustrated* some years ago, with cost of glasses for the same.

A plain tin or paper tube, black on the inside, a lens of one-inch focal distance for eye glass, and one of 36 inches focal distance for object glass—one lens to be fitted at each end of the tube. Price of lenses $1 50.

Also, if these cheap microscopes so extensively advertised, are of much use?

If you refer to such as are sold for a dollar, or less, we reply, No. A compound microscope costs from $10 to $50. The "Craig," with 25 mounted objects, costs $5, and is said to be the best thing of the size and price.

EDUCATION, ECONOMY, AND BAD HABITS.—A very sensible correspondent, who suggested to a family dependent on their own resources, the propriety of eschewing tea, coffee, and tobacco, and using the cost, say, fifteen dollars a year, in obtaining books, meets with the following response from over the sea:

In page 63 of your PHRENOLOGICAL JOURNAL for March, I read the "good idea" of "E. S. P.," also your comments thereon. All hail! to such an "idea." Willingly would I give up the use of tea and coffee to-morrow if you would tell the readers of your justly celebrated Journal of a "*substitute*"—a substitute for tea and coffee. Here, in Britain, these articles are very popular, especially at breakfast. When I, as one of your humble disciples, ignore the use of tea and coffee, I am generally met with, "What can we take instead?" A very blunt "don't know" is all I can give. Could you kindly supply the information through the JOURNAL, and oblige many besides your "Inquirer?" J. SHAW, R. C. P., Lidleover, Derby, England.

In reply, we beg to state that it is our deliberate opinion that WATER is the most appropriate drink for all living creatures. It is the best to quench thirst, and to supply the body with the necessary fluids; and our answer to the question, therefore, is, water, *water*, WATER. If you eat plentifully of fruits and succulent roots, you will need to drink very little. Man requires no more drink in proportion to his bulk than other animals. Most people drink altogether too much. We shall be happy to hear often from our English readers.

THIN LIPS.—Why "beware of thin, tight, pale lips, especially in women?" D. H.

Simply because such lips indicate a deficiency of certain qualities especially desirable and attractive in women—in other words, certain mental and bodily conditions not calculated to promote the happiness of social life. They lack *warmth* and *health*. We should beware of them only in the same sense that we should avoid connecting ourselves with any other undesirable mental or physical disposition or condition; for persons with such lips may possess many excellent qualities, indicated by other signs.

Publishers' Department.

A NEW VOLUME.

IT is not our intention to print a Fourth of July Oration on the present occasion, but to call the attention of our readers to the NEW VOLUME of this JOURNAL, which will commence about the time of our great national anniversary, and to say something of the nature of our mission and the objects of our publication.

That the world—social, political, and religious—is "all at sea" without any reliable chart or compass, must be evident to every serious-minded, thinking man. "Where are we drifting?" is a question which the wisest men among us can not answer.

Among the nations, misrule, agitation, and disorder prevail. The people are kept in a continual state of excitement and anxiety by party strife and bitterness. The politicians play their desperate games, and the most adroit and the most unscrupulous win the stakes and pocket the spoils; and this spirit of political gambling runs through all the ramifications of society—be it the moneyed aristocracy or the democracy without money. *All* are alike unsettled in opinions and in morals, and with no proper standard by which to regulate their conduct, and no grand and firmly established truths by which to square their opinions.

Look at the terrible life-and-death struggle now going on between contending parties in this our own beautiful country. Look at Poland, again struggling for independence; at Mexico, contending for her national existence; at Italy and Hungary, in political ferment; at China, Japan, and the dominions of the idolatrous black king of Dahomey. See in the latter, hundreds of human beings put to death to celebrate a holiday. Behold India bristling with bayonets, and a hundred millions of people held in subjection by a ruthless foreign invader. And England herself, is she in a state of tranquillity and security? Witness her starving thousands who threaten to break out into open riot any day! Does such a state of things betoken a healthy state of the body politic? Is it not in consequence of one class—the rich—holding another class, much larger in numbers but poor, in a subjection almost as servile as that of the African slave? Talk about liberty and equality in England! Yet we Americans are denounced because we do not take the black man into equal footing with people of our own race. Let aristocratic England set the example by taking to her bosom her own poor, down-trodden, and despised millions of *white* men and women.

In the religious world there is as little peace and concord as in the political. The Pope trembles on his throne; Catholic Ireland is agitated; the English Church is disturbed; sectarian controversies prevail; and error seems to triumph, for the time, over truth. How can one who himself "walketh in darkness," lead others to the light?

Socially, the world is not less sadly out of harmony and astray in wrong and forbidden paths. What can we expect of children "born in sin and nurtured in iniquity?" What shall we say of society where, as in Paris, Berlin, and Hamburg, one out of every five children born is illegitimate? In Scotland it is one in ten. In New York there are no exact statistics, but such children are not few. Thus man's social nature runs riot unrestrained. Look at Mormonism in Utah, and the same "ism" practiced on a smaller scale everywhere! Is there need of further proof that we are wide astray from the "right way" in respect to social morals?

How is it with us physiologically and hygienically? Observe the melancholy effects of perverted appetite! Who among us thoroughly subordinates this propensity even to his own judgment? Where you can point to one person who commits no excess in this respect—who is free from the use of blood-poisoning substances, such as alcoholic liquors, tobacco, opium, drugs, etc—we can show you a hundred who carry the taint of corruption in their systems—who are consumptive, scrofulous, asthmatic, rheumatic, deaf, blind, or afflicted with some infirmity brought on by hereditary influences, wrong living, or some other cause which *might* have been avoided, either by themselves or their progenitors.

And what is man in his best estate, as an intellectual being? How few do we find who *aspire* to lead, who know enough to find even their own way! Take, as samples of our "giant intellects," such men as Humboldt, Agassiz, Owen, Liebig, and the few others whom the world looks up to for light and knowledge. They can talk learnedly of fossils and the dry bones of the antediluvians, and quarrel about the origin of man, whom some of them confound with the monkey, and the essential difference between whom and the monkey not one of them can to-day clearly and scientifically point out; nor can they draw the line between instinct and reason—between animal and man. They can analyze rock, mud, and muscle, but what can they tell us of the immortal soul—the subject we most desire and need to know? What of the complicated nervous system? Are they not blind, yea, in heathen darkness, on the subject of the immortal spirit? They either reject or fail to appreciate and correctly interpret Scriptural Revelation, and are indeed "the blind leading the blind!" A sad picture, truly! But there is hope.

There is hope, we repeat, and it has been graciously vouchsafed to us to indicate to the world both the way and the means by which mankind may come up out of the utter darkness into more than noon-day light. We have found the key which unlocks the casket where the richest treasures of true knowledge are kept, and it is our purpose to open it and exhibit its jewels of truth to the wondering world. Society is at sea. We have the compass by which it can be steered into the haven of peace, righteousness, and true happiness. The religious and political world is divided and distracted by partisan and sectarian controversies and conflicts. We, as phrenologists, have the rule of life and the standard of faith—we are able to set forth principles, established on the firm basis of material proof and reduced to the strictest scientific formulas, by which all opinions may be tested, and with which all religious, political, and social dogmas must be squared. We are able to point to truths *revealed in the nature of man* and susceptible of actual *demonstration*, which *solve the problem of human destiny*, and it is through the means here indicated alone that this problem can be solved. This is saying much, but we have weighed our words and can make our statements good.

A knowledge of Anthropology, which includes Phrenology, Ethnology, Physiology, Physiognomy, and Psychology, is all important to mankind, and leads inward, outward, and upward to *all* the truths which man is capable, in this life, of comprehending. "Know thyself," and, through thyself, thy fellow-men; learn thy destiny and thy duty; live the life that God has appointed. We will give, by the aid of Phrenology, the light which has been bestowed upon us for that purpose to make clear the way.

We have learned some important truths, in the line of the investigations to which we have devoted ourselves, and we purpose to give the readers of the JOURNAL the results. We are to pursue our voyage of discovery still further and further. Who will accompany us? The new trip commences with our next number. We shall be happy to welcome all—old friends and new, both sexes and all ages—we shall have something for all to learn and to do.

OUR NEW TERMS.

SPECIAL NOTICE.—The subscription price of THE PHRENOLOGICAL JOURNAL AND LIFE ILLUSTRATED, commencing with the JULY number, will be—

Single Subscriptions	$1 50
Clubs of five or more, each	1 25
Clubs of ten or more, each	1 00

Single numbers 15 cents each.

European subscribers must add 25 cents extra, and those in Canada and other British Provinces, 12 cents, with which to prepay postage.

No yearly subscriptions can be received for less than $1 after this present date. Those who send in their subscriptions *before* the 1st of July will receive the JOURNAL a year for $1.

Agents holding certificates will please return them at once, as they can not be recognized after the 1st of July.

Remittances may be made in U. S. current bank notes, gold currency, or uncut post-office stamps of all denominations. Drafts for any considerable amount made payable to FOWLER AND WELLS, on New York, Boston, or Philadelphia preferred.

Subscribers will please specify with what number or month they wish to begin. Back numbers previous to the May number are out of print.

A very few volumes for the year 1856, nicely bound, may be had at our office, for $1 50. Prepaid by post, $1 75.

We anticipate a large increase to our present list before the 1st of July, and shall try to print enough to meet the demand; but the cost of paper is too great to warrant us in printing a surplus. Every number must bring us what it cost, or we lose.

Hoping to hear from our friends once more, we may venture to promise them our best endeavors to furnish them, not with a toy or a play-thing, but with such a work as can nowhere else be found—a work which shall minister no less to their spiritual or religious wants than to their social and intellectual needs.

Please address, as usual, FOWLER AND WELLS, 308 Broadway, New York.

To Our Exchanges.—We do not often call for "notices," for the very good reason that our friends of the press are not in the least jealous of us—we are not partisans—and they make it a point to mention us, we presume, quite as often as we deserve, and sometimes more warmly than our best efforts merit. But, in view of the scarcity of paper, we may suggest that, to secure the regular receipt of this Journal, it is not necessary that they put us on the "exchange list." We can not make a profitable use of half the papers we receive, and will cheerfully dispense with most of them, and still continue to send ours, *providing* editors, when noticing us, send us *marked copies containing* the same. This will be something of a saving to them, and serve us just as well. All papers may be addressed Phrenological Journal, New York.

About the Nose.—"'Mayhap there is more meant than is said in it,' quoth my father. 'Learned men, brother Toby, don't write dialogues upon Long Noses for nothing'"—*Tristram Shandy.*

If anybody doubts the foregoing shrewd remark of Mr. Shandy, senior, let him look out for the July number of the Phrenological Journal, which will be particularly interesting to people who "follow their noses," since it will introduce them to a better acquaintance with their guides, and put them on an entirely new scent. Is your nose Roman, Grecian, or Pug? Is it arched or *retroussé;* broad or narrow; blunt or pointed; long or short? See our July number for the physiognomical indications of all sorts of noses, illustrated with a large number of original drawings, as well as portraits of men and women noted for their noses and for the characters which they indicate. Newsdealers, agents, and others who wish for extra copies, should send in their orders at once, that we may print enough to supply the demand. "First come, first served."

Our New Book Catalogues.—We have just published new lists, embracing works on Phrenology, Physiology, Phonography, Hydropathy, Psychology, Agriculture, Architecture, Home Education, Gymnastics, Food and Diet, Fruit Culture, etc., together with a "Special List" containing Physiological works intended especially for those who need them. Agents and Booksellers would find a ready sale for these works in many places where they have not yet been introduced. Send a prepaid envelop, addressed to yourself, and the different catalogues will be sent by return post.

How to Train up a Child.—Parents, teachers, and others will thank us for giving to them the rich and original treatise, by the Rev. Henry Ward Beecher, on this most important subject. It is full of Physiology and Phrenology, and, as a matter of course, its suggestions and instructions must meet the approval of all sensible people. We bespeak for it not only an attentive perusal, but that its principles be practically applied in the training of children.

Out of Print.—We regret we can not furnish back numbers of the present volume of this Journal. The unexpected increased demand took the entire editions. But we still have lots of good things in store, and a new volume begins with the next July number, when new subscriptions may commence.

Responses.—Several of our readers respond to the proposition of making this Journal weekly, and all in the affirmative. One, W. H. B., of Illinois, expresses the voice of all. He says:

I would be willing to give $5 a year for the Journal, present size, if published weekly, and would try my best to make it circulate more extensively, as I have always tried to do, since I have enjoyed the light myself, but so far without much success. But the time is coming even in this vicinity when there will be a demand for such a work.

More Dead Letters.—Since our last, besides several which have been reclaimed, are the following letters received containing money, without proper directions:

From Wellesly, supposed Canada; no signature.
Joseph W. Cheesman, Aberdeen; no State.
Atlanticville, no State, no signature.
Hilton Head, South Carolina, Company H, 115th Regt. New York Volunteers, no signature.
N. B. Pearsall, Morris; no State.

All business letters should contain, besides the remittance, the name of the post-office, county, and State; also the name of the writer. But we congratulate the world on the fact that marked improvements are being made by the rising generation in the matter of correct letter-writing.

Our London Letter Box.—To accommodate European readers and correspondents, we have arranged to have a "letter box" kept at the rooms of Mr. William Tweedie, 337 Strand, W. C., London, who will receive and forward to us all communications for the Editors of the Phrenological Journal. European letters should be written on thin paper, and addressed in the care of Mr. Tweedie, as above. All our publications may be had at the above address.

What Books are Best.—Several correspondents inquire which are the best books to give a knowledge of Phonography? [See our new list for full particulars.] What is the price of the Phrenological Bust? $1 25. Or, for the Phrenological Inkstand, with the head of Washington mapped off, and numbered? $2 50. Are the good qualities of parents transmitted to their children? Yes, and the bad also.

Phonography.—W. H. C.—We presume you could find a situation on any of our leading daily journals, when you can report a speech *verbatim*. There are many who can "take down the substance," but who can not get the *entire* speech. *Verbatim* reporters get the highest wages. Practice makes perfect, and if you persevere you may realize your highest hopes.

Private Advice Publicly Given.—An "indiscreet" young man asks us to recommend what book or books he may read to learn how to treat himself for an infirmity we can not name. The best we can do in the premises is to refer him to our "Special List," which contains works—not in our regular catalogue—on subjects which must be regarded as strictly confidential.

The Mouth.—A correspondent desires answers to several questions concerning the mouth, not touched in the May number. We will keep the matter in view, and may assure C. A. L. that the subject is by no means exhausted, and that we have yet much to say on this interesting feature.

Literary Notices.

[*All works noticed in* The Phrenological Journal *may be ordered from this office at prices annexed.*]

The Gentle Skeptic; or, Essays and Conversations of a Country Justice on the Authenticity and Truthfulness of the Old Testament Records. Edited by Rev. C. Walworth. 12mo, 368 pp. Price, $1 25. New York: Appleton & Co.

We have seldom met a work on a theological subject written in a better style to attract public attention than is this. The object of the author seems to be to show that, properly understood, there is no discord, but harmony between the teachings of the Old Testament and the real acquisitions of modern science. The principal questions discussed: The Philosophy of Miracles, Nature and Extent of Inspiration, the Antiquity of the Earth, the Six Days of Genesis, the Deluge, the Consanguinity of the Human Race, the Antiquity of Man.

It is such a book as may be written by a clergyman, firmly fixed in his position, and published by a so well-known orthodox house as the Appletons, without comment; but had it been issued from the press of Fowler & Wells, it would have been seized upon with eagerness by the opponents of Phrenology as an almost conclusive evidence of their infidelity.

Western Health Journal, devoted to Hygienic, Mental and Physical Culture, etc. Drs. Jones, Woodbury and Co., Editors. 32 pages. Octavo. $1 a year.

A very creditable Health Reform monthly journal, on the Hydropathic basis. Here is the motto of the editors.

"We hold it to be true, that anything the system can not use, or is rejected by the vital instincts when in health can not have 'virtue' to restore the organism to a normal condition when diseased, and that the only effect they can have is to change the direction of the remedial effort, and thus convert acute into chronic disease."

When inclined to "take a dose of medicine," our advice to the reader is, to inclose a dollar to the editors, and instead of taking physic, to take the *Western Health Journal* a year. Published in Wabash, Indiana.

Leaves from the Diary of an Army Surgeon; or, Incidents of Field, Camp, and Hospital Life. By T. T. Ellis, M.D. 12mo, 312 pp. Price, $1. New York: John Bradburn.

Dr. Ellis, in this work, gives us a little insight into the medical experience of army life, a lengthy account of the seven days' battles on the Peninsula, and of the evacuation thereof, by the Federal forces, which occupies rather more than half of the book; while the greater portion of the remainder is occupied by accounts of the battles of Antietam, etc., consequent upon the Rebel invasion in Maryland. The author takes occasion to speak of the "unconstitutional inroads made on their [Southern] institutions, and the unwise policy of the Emancipation Proclamations." The book is dedicated to Gen. McClellan.

Pre-Adamite Man.—The Story of the Human Race from 35,000 to 100,000 Years Ago. By Griffin Lee, of Texas. 12mo, 408 pp. Price, $1 25. New York: Sinclair & Tousey.

This author commences his volume with the assertion that Adam was not the first man, and proves it satisfactorily to himself, we presume, in the pages that follow. After examining his book, we find ourselves quite as much in a muddle as before; but if Adam wasn't the first man, we should like to know who was?

The Herald of Health is constantly gaining in public favor. Each number seems to be better than its predecessor. The June number contains the Editor's address, delivered by invitation, before the Joint Senate and Assembly committees at Albany, March 25th, 1863, "On the Hygienic contrasted with the Drug Medical System;" Perverted Appetite; What the Maine Ladies Say; Uterine Ulceration; The Condition of Women; Bulwer's Celebrated Letter on Water-Cure; The Two Systems, by Dr. Webster; Hygeio-Therapy in New Brunswick; Under the Ice; Illustrations of Medical Science, by the Editor; Mercurial Diseases, do.; Prof. Lee on Mines, do.; The Salt Question, do.; Cork Beds, do.; Golden Poison, do.; The Health Association; Yellow Fever Investigation; Plain Puddings, 20 receipts; Drugs, Quinine, and Whisky in the Army; The Kintergarten; and over a dozen other articles. Forty pages interesting and instructive matter for 10 cents, or $1 00 per year. Published by R. T. Trall & Co., 15 Laight Street, and for sale by newsmen.

The Gentleman. By Geo. H. Calvert. 90c. Boston: Ticknor & Fields.

In this volume the author gives a full, forcible, frank and fervent discussion of the Gentleman as he figures in history, in society, in domestic life, and in literature; and the whole treatise, while made genially attractive by playfulness and anecdote, is pervaded by an earnestness born of strong conviction and deep sympathies.

In Press.—The Practical Shepherd, by Hon. H. S. Randall, LL.D. Mr. D. D. T. Moore, of the *Rural New Yorker*, has in the press of J. B. Lippincott, of Philadelphia, a work on Sheep—their varieties, breeding, diseases, management, and all the details relating thereto. Such a work, from such a pen and press, must prove a desideratum to this great and growing interest. If cotton was king, it is king no more, and Wool is now the cry. The price for wool has gone up to a high figure, and everything that grows a fleece will be sheared; cats, dogs, and even pigs, which are said to make a "great cry" and give but little wool, may look out for their "fleeces," if not for their skins, so great is the demand for this material.

Besides the "Practical Shepherd," Mr. Moore is about to publish a manual on Flax Culture and manufacture, with full directions for preparing the ground, sowing, harvesting, etc.; also an essay on Hemp, large quantities of which will soon be wanted by the Government.

My Southern Friends. By Edmund Kirk. Published by the *Tribune*, New York. Price, $1 00.

The large sale of "Among the Pines" introduced the author to a large circle of readers who will welcome this new production, which possesses all the truthfulness and interest of its predecessor.

Excise Tax Laws. By Charles F. Estee. 8vo. Price, $1 50; postage, 25c. New York: Fitch, Estee & Co.

A most complete, accurate, and reliable work, with full marginal notes and references, and a minute Analytical Index.

Walker, Wise & Co., Boston, have recently issued Chaplain Fuller, being a life sketch of a New England clergyman, and an army chaplain. 12mo, with portrait. Price, $1 25; postage, 15c.

Common Prayer for Christian Worship.—A compilation, in part, by the Rev. James Martineau. Price, $1 25.

The Conscript. By Dumas. T. P. Peterson & Bros., Phila. Cheap edition. 50c.; fine, in cloth, $1 50.

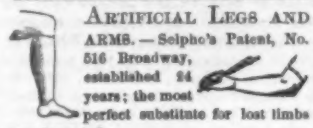
Housekeepers, Use the Best!—Pyle's Saleratus, Pyle's Cream Tartar, Pyle's O. K. Soap. These articles are put up expressly for the best family needs, and the steadily increasing demand is the best proof of their superiority. Sold by grocers everywhere. James Pyle, Manufacturer, 350 Washington Street, New York.

Advertisements

To ADVERTISEMENTS we can give but a limited space; and only to those deemed proper. We prefer brief announcements only. Price 25 cents a line each insertion. Must reach us by the 10th of the month.

MRS. ELIZA DE LA VERGNE,
M.D., 258 Pacific Street, Brooklyn, L. I.

CHARLES H. SHEPARD, M.D.,
65 COLUMBIA STREET, BROOKLYN.
Movement-Cure, Gymnastics, Hydropathy.



ARTIFICIAL LEGS AND ARMS. — Selpho's Patent, No. 516 Broadway, established 24 years; the most perfect substitute for lost limbs ever invented.

N.B.—Soldiers supplied free by order of the Surgeon-General U. S. A.

CLOUGH & BURRELL'S PATENT FIRE-CRACKER TORPEDO AND PARLOR GUN.—This device is intended as a toy gun, and an instrument of practice in acquiring the art of shooting. The best and most salable article for boys and girls' enjoyment of anything ever offered the trade. Price $15 per gross; fancy striped $18. All orders must be addressed to S. R. BURRELL, 71 Broad Street, or to I. S. CLOUGH, 200 Pearl Street, New York.

SINGER & CO.'S
LETTER "A" FAMILY SEWING MACHINE,
WITH ALL THE RECENT IMPROVEMENTS,

Is the BEST, and CHEAPEST, and MOST BEAUTIFUL of all Sewing Machines. This Machine will sew anything, from the running of a tuck in Tarletan to the making of an Overcoat—anything from Pilot or Beaver Cloth down to the softest Gauze or Gossamer Tissue, and is ever ready to do its work to perfection. It can fell, hem, bind, gather, tuck, quilt, and has capacity for a great variety of ornamental work. This is not the only Machine that can fell, hem, bind, braid, and so forth, but it will do so better than any other Machine. The Letter "A" Family Sewing Machine may be had in a great variety of cabinet cases. The Folding Case, which is now becoming so popular, is, as its name implies, one that can be folded into a box or case, which, when opened, makes a beautiful, substantial, and spacious table for the work to rest upon. The cases are of every imaginable design—plain as the wood grew in its native forest, or as elaborately finished as art can make them.

The Branch Offices are well supplied with Silk Twist, Thread, Needles, Oil, etc., of the very best quality.

Send for a copy of "SINGER & CO.'s GAZETTE."
I. M. SINGER & CO.,
458 Broadway, N. Y.

ORNAMENTAL IRON WORK.
WROUGHT, CAST, AND WIRE

RAILINGS, suitable for BANKS, INSURANCE COMPANIES, and OFFICES.

FARM AND LAWN FENCES, Garden Inclosures, Summer Houses, Door and Window Guards, Coal Screens, and Heater Guards, in various styles. The

COMPOSITE IRON RAILING,

especially adapted to Cottages and Veranda Work, Fence, and Cemetery Inclosures of the most durable and ornamental Railing made.

GATEWAYS, Iron Piers, Horse Posts, Mangers Hay Racks, Stall Guards, Tree Guards and Flower Trainers.

IRON BEDSTEADS,
CRADLES AND CRIBS, WITH MATTRESSES,
in large assortment.

IRON VASES, Chairs, Settees, Hat Stands. Illustrated Catalogues mailed on receipt of four-three cent stamps.

HUTCHINSON & WICKERSHAM,
259 Canal Street, near Broadway.
Gen. agents for "N. Y. Wire Railing Co." Manufactory 57, 59 and 61 Lewis St., N. Y.

THE CRAIG MICROSCOPE.

This is the best and cheapest microscope in the world for general use. It has just received the First Premium — Silver Medal—at the Ohio State Agricultural Fair. It requires no focal adjustment, magnifies about 100 diameters, or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2 25, or with six beautiful mounted objects for $3; or with 24 objects, $5. Address

FOWLER AND WELLS,
308 Broadway, New York.

CORK BEDS.

We are prepared to furnish a new material for beds—cork shavings—for twenty-five cents per pound. It is equal to hair in comfort, and only one-third its cost; while in the matter of health and cleanliness, it is all that can be desired. It is also more durable than any other material in use, and is withal so elastic in itself as to render "spring bottoms" entirely unnecessary. Some persons are using the shavings for pillows, preferring them to cotton, hair, or feathers. Fifteen to twenty pounds are sufficient for a full-sized double bed. Send orders to

R. T. TRALL & CO.,
15 Laight Street, New York.

$160.—NEW 7-OCTAVE PIANOS in rosewood cases, iron frames, and over-strung bass, for $160; do., with carved legs, $175, $185, and $200; do., with pearl keys, $220 and $300. The above Pianos are the greatest bargains in the city. Second-hand Pianos at $25, $40, $50, $60, $75, $100, $120, and $130, $14', and $150. New MELODEONS at extremely low prices. Foreign sheet MUSIC at 2 cents per page. All kinds of Music merchandise at war prices HORACE WATERS, Agent,
12-11 No. 481 Broadway.

MISCELLANEOUS BOOKS
AT LOW PRICES.

We have on hand a few of the following-named books, which, as they are not at present included in our list of publications, we will send by mail, post paid, at the prices annexed, which is about one-half the regular price.

Essay on Party	15 cents.
Essay on Wages	15 "
Future of Nations	6 "
Kansas Region	25 "
The Milk Trade	10 "
True basis of American Independence. By Hon. Wm. H. Seward	6 "
Thoughts on the Death Penalty	10 "
Illinois as it is	40 "
Hints on Dress and Beauty	10 "
Reed's Guide to Kansas	15 "
Demands of the Age. Hon. Horace Mann	10 "
Inaugural Address	10 "

Address, FOWLER AND WELLS,
308 Broadway, New York.

FRENCH FLANNEL ARMY AND TRAVELING SHIRTS. — Dress Shirts made to measure, a perfect fit, of superior materials and workmanship, $24 and $30 per dozen.

☞ Bosoms, Collars, and Wristbands for Shirt-making, at JAMES PARRISH'S Gentlemen's Furnishing Establishment, 323 Canal Street, near Greene Street, New York.

MRS. HANKINS' PAPER: A Home Gazette of Pastimes, Utilities, Arts of Beauty, Etiquette, Curiosities, Travels, Adventures, Odd Customs, and Ten Thousand Wonders of the World. Illustrated with original pictures, etc. Different from all other papers, and just suited for the enjoyment of families. Subscription, $1.

M. GAUNTT, 413 Broadway, New York.

WHEELER & WILSON'S
SEWING MACHINES.
HIGHEST PREMIUMS.
International Exhibition, London, 1862.
Industrial Exposition, Paris, 1861.
OFFICE, 505 BROADWAY, N. Y.

A Thousand a Day Ordered.

A HERETOFORE UNSUPPLIED WANT
THE NATIONAL ALMANAC
AND
ANNUAL RECORD FOR 1863.
AMONG ITS CONTENTS ARE:

Original and carefully prepared articles on The Progress of Astronomy; Meteorology; The United States Coast Survey; The Smithsonian Institute; Insanity and Insane Institutions of the United States; Population of the United States; with original and novel Diagrams; Petroleum, or Coal Oil; Iron-Clad Vessels and Projectiles, etc.

The Government of the United States; its Organization; a list of all its principal Officers; with a full account of all its Departments.

The Army, Navy, and Marine Corps; their Organization. List of Officers, Rank, Pay, etc., corrected to December 1, 1862; Vessels of War built, purchased, and now building; showing also the extent of our Iron-Clad Navy.

A Record, minute and accurate, of the Events of the War, from its commencement to Dec. 31, 1862; with a carefully prepared table of Battles to the same date.

The United States Tax Law, alphabetically arranged for ready reference.

The New Tariff arranged in a similar manner.

The United States Mint; its coinage, history of each coin, value of foreign coins, with other useful tables.

Abstract of the Laws of the last three sessions of Congress.

United States Census Tables for 1860, arranged especially for this work.

List of Envoys Extraordinary, Ministers Resident, and Consuls from the United States to foreign countries; List of Foreign Ministers and Consuls resident in the United States, corrected at the State Department, December 1.

List of Postmasters in the United States, corrected to December 1.

List of Assessors and Collectors of the U. S. Internal Revenue Tax.

The Educational Interest of the United States, presented in a statistical form.

List of Railroads and Canals in the United States, with full details.

Individual States; embracing a list of their Officers, Statistics of their Government, Finances, Banks, Railroads, Agriculture, Education, Charitable and Correctional Institutions, and contributions to the National Army to Jan., 1863

Ecclesiastical Record, and Progress of Religious Denominations at home and abroad.

A List of Books, with their titles, sizes, and prices, published during the year in the United States.

Obituary notices of the most distinguished persons who have died in the United States during 1861 and 1862, with a full account of the principal officers who have fallen in the present War.

Foreign Governments; their Organization, Population, Government, Armies, Navies, etc., with ample statistics.

The so-called Confederate Government, their State Governments, Finances, Army Officers, etc.

In the extent, fullness, and accuracy of its statistics, and the variety and completeness of its details, it is believed that the NATIONAL ALMANAC far surpasses any previous statistical work on the United States, and that it must become such a hand-book of reference for everything appertaining to our national condition as every intelligent person will need.

Notwithstanding the large amount expended in getting up this work (over five thousand dollars) and the high price of paper, the publisher will furnish it, handsomely printed on the best fine white paper, at a very low price.

It is issued in One Volume 12mo, upward of 700 pages, bound in Boards, price $1, or substantially bound in Muslin, $1 25.

Sent free, by mail, on receipt of price. Address GEORGE W. CHILDS, Publisher. Nos. 628 and 630 Chestnut-st., Philadelphia.

AGENTS WANTED EVERYWHERE to sell this indispensable work.

FASHIONS! FASHIONS!—IN MME. DEMOREST'S MIRROR OF FASHIONS.—Journal du Grande Monde. Summer number ready, containing over one hundred Engravings, full-size Patterns, etc. See the list of premiums to yearly subscribers.

JUST TRIBUTE TO MERIT.

AT INTERNATIONAL EXHIBITION, LONDON, July 11, 1862.

DURYEA'S MAIZENA

Was the only "preparation for food from Indian Corn" that received a medal, and honorable mention from the Royal Commissioners, the competition of all prominent manufacturers of "Corn Starch" and "Prepared Corn Flour" of this and other countries notwithstanding.

MAIZENA

The food and luxury of the age, without a single fault. One trial will convince the most skeptical. Makes Puddings, Cakes, Custards, Blanc Mange, etc., without isinglass, with few or no eggs, at a cost astonishing the most economical. A slight addition to ordinary Wheat Flour greatly improves Bread and Cake. It is also excellent for thickening sweet sauces, gravies for fish and meat, soups, etc. For Ice Cream nothing can compare with it. A little boiled in milk will produce rich Cream for coffee, chocolate, tea, etc.

Put up in one-pound packages, under the trade mark "Maizena," and with directions for use.

A most delicious article of food for children and invalids of all ages. For sale by Grocers and Druggists everywhere.

MANUFACTURED AT GLEN COVE, LONG ISLAND.

Wholesale Depot, 166 Fulton St.

WILLIAM DURYEA, General Agent.
April, 3', 1862. 6-11

MATTSON'S ELASTIC SYRINGE.
NEW FORM—NEW PATENT.
THE BULB NECK FREE FROM LEAKAGE.
The greatest Improvement yet made in Syringes.

This new and superior Syringe is manufactured by the MATTSON SYRINGE COMPANY, in the city of New York.

It is suited to males, females, and infants.

It is made of the best white rubber and metal, with patent screw bulb fastenings, which prevent leakage, and which is now conceded to be the greatest improvement yet made in Syringes.

It is the most convenient Syringe in use, either for males or females, because its peculiar form adapts it to the hand in every possible position.

It is the latest and best improvement of the inventor, through whom the Elastic Pump and other improved Syringes were first introduced into the United States.

This is the first Syringe that ever received the high compliment of a Silver Medal.

The new "Family Guide," contained in the box with each Syringe, embodies much useful information respecting the use of injections.

Convenience in use, and freedom from leakage, give this Syringe an undoubted preference over all others.

EVERY SYRINGE WARRANTED TO BE PERFECT.

Price $2, or $2 50 if sent by mail, postpaid. A liberal discount to dealers.

FOWLER AND WELLS,
308 Broadway, New York.

WESSELHOEFT WATER-CURE,
BRATTLEBORO, VT.

This extensive and well-known establishment, the pioneer Water-Cure of this country, is now better than ever prepared for the reception of patients. The natural advantages of the place are perhaps superior to any other. The beauty of the scenery, the purity of the air and water are certainly unsurpassed in this country. To the perfect purity of the water is no doubt to be ascribed a large portion of the very favorable results for which the Wesselhoeft Cure is so celebrated. Friends of patients can be accommodated with board. For terms, etc., address, P. S. LINES, M.D., Physician, or P. B. FRANCIS, Proprietor.

Something New.

VIGNETTOSCOPES!! VIGNETTOSCOPES.—The Vignettoscope, recently invented and patented by Mr. Max Goldbacher, will show vignettes or pictures on *cartes de visites* in *bas relief*, with perfect stereoscopic effect, and magnify it almost to life size; so much so, that our absent friends, whose pictures we look at, seem to stand before us as if by magic. For sale at MAX GOLDBACHER'S Optical Establishments, 98 Fulton Street and 889 Broadway, New York. Specimens may be seen and orders filled at the office of this JOURNAL, 308 Broadway.

Works on Phonography.

HON. THOMAS H. BENTON said, when presented with a verbatim report of one of his speeches taken by a little boy, "Had PHONOGRAPHY been known forty years ago, it would HAVE SAVED ME TWENTY YEARS OF HARD LABOR."

Graham's Hand-Book. Presenting the principles of all styles of the Art, commencing with the analysis of words, and proceeding to the most rapid reporting style. $1 25.

Graham's First Standard Phonographic Reader. In corresponding style, i. e., with Vowels. 75 cents.

Graham's Second Standard Phonographic Reader. In the reporting style. $1.

Synopsis of Standard or American Phonography, printed in pronouncing style. 20 cents.

Standard-Phonographic Dictionary gives the Pronunciation and the best Corresponding and Reporting Outlines of many thousand Words and Phrases. Invaluable to the student and practical reporter. 12mo, $3 50; 8vo, $4 50.

Phrase Book, a Vocabulary of Phraseology. 75 cts.

The Manual of Phonography. By PITMAN. A new and comprehensive Exposition of Phonography, with copious Illustrations and Exercises. Designed for schools and private students. New edition, 60 cts.

American Manual of Phonography. Being a complete Guide to the Acquisition of Pitman's Phonetic Shorthand. By LONGLEY. 60 cents.

Book of Psalms, in Reporting Style. $1.

The Reporter's Companion. By PITMAN and PROSSER. A complete Guide to the Art of Verbatim Reporting, designed to follow Pitman's Manual of Phonography. $1.

New Manners Book, printed in Phonography. Containing valuable extracts. Compiled by PITMAN. 75 cents.

The Phonographic Teacher. By PITMAN. On the method of Imparting Phonography, containing a course of lessons, with practical hints on lecturing, etc. Engraved in the corresponding style. $1.

The History of Shorthand, from the System of Cicero down to the Invention of Phonography. Edited and engraved on Stone by PITMAN. 75 cents.

The Phonographic Instructor. By BEN PITMAN. (Elementary.) 75 cents.

The Phonographic Reader. By PITMAN. A Progressive series of reading exercises. A useful work for every Phonographic student. 25 cents.

Phonographic Copy-Books, with morocco covers, for the use of students. Price 75 cents. **Copy-Books Without Covers.** Price 12 cts. **Note Paper, Pencils, Pens,** etc., in variety.

The American Phonetic Dictionary, with pronouncing Vocabularies of Classical, Scriptural, and Geographical Names. By DANIEL S. SMALLEY. Price $4.

Sent, prepaid, by return of the FIRST MAIL, on receipt of price. All letters should be addressed to FOWLER AND WELLS, 308 Broadway, New York.

THE MOVEMENT-CURE	$1 40
PHYSICAL PERFECTION	1 40
FAMILY GYMNASIUM	1 40
CALISTHENICS	75
LEWIS'S NEW GYMNASTICS	1 40
GYMNASTIC EXERCISES	85

FOWLER AND WELLS.

DWIGHT'S JOURNAL OF MUSIC.

ONLY ONE DOLLAR A YEAR!

Each number containing sixteen pages, including FOUR PAGES OF SUPERIOR MUSIC, MUSICAL ESSAYS, CRITICISMS, REVIEWS, REPORTS OF CONCERTS, a General Summary of MUSICAL INTELLIGENCE, and CORRESPONDENCE from all parts of the United States and Europe.

☞ Specimen copies mailed *free* on application. Published by OLIVER DITSON & CO., Boston. 1t

SAVING AND WASTING; OR,

DOMESTIC ECONOMY ILLUSTRATED

By the Life of Two Families of Opposite Character, Habits, and Practices, in a pleasant tale of real life, full of

USEFUL LESSONS,

SHOWING

HOW TO LIVE,	HOW TO HAVE,
HOW TO GAIN,	HOW TO BE HAPPY,

Including the story of the needlewoman who supported herself and four children on

A DIME A DAY.

No man, woman, or child can read this book without being interested in its pleasant narrative or exposition of human character, and instructed in its lessons of economy in things that pertain to every-day life in every family. Price, postpaid, $1.

FOWLER AND WELLS,
308 Broadway, New York.

The Best Manners Book ever published.

HOW TO BEHAVE;

A HAND-BOOK OF

REPUBLICAN ETIQUETTE

This work, which has received the unqualified approbation of the press and public, is everywhere quoted as a standard work. It teaches

HOW TO BEHAVE

AT HOME,	AT TABLE,
ON THE STREET,	AT PARTIES,
AT CHURCH,	IN VISITS,
AT AMUSEMENTS,	IN CONVERSATION,
IN TRAVELING,	IN COURTSHIP, AND

ON ALL OCCASIONS.

Every young man and woman in the land should have it. Being handsomely bound, it is just the thing for a present. Price only 60 cents. FOWLER & WELLS,
308 Broadway, New York.

EDUCATION COMPLETE: Embracing

PHYSIOLOGY, ANIMAL and MENTAL, applied to the Preservation and Restoration of Health of Body and Power of Mind; SELF-CULTURE, and Perfection of Character, MEMORY, and INTELLECTUAL IMPROVEMENT, applied to Self-Education. Complete in one 12mo volume, and more than 900 pages. Illustrated.

Every one should read it who would improve his health, develop his mind, and improve his character. By first mail. Price (post free) $3 50. Address

FOWLER AND WELLS,
308 Broadway, New York.

PATENTS APPLIED FOR.

Being centrally located in our commercial metropolis, and having an able and experienced agent at the seat of Government, we are able to offer more than usual facilities for the transaction of business in this country in relation to patents; while our arrangements abroad enable us to secure foreign patents on the most satisfactory terms. Our present arrangements are such that we hope for the future to keep pace with the demands of the public for our services, and it shall be our purpose to attend with care and promptness to the wants of inventors. Communications in reference to inventions, patents, or patent law carefully considered and promptly attended to.

"HOW TO GET A PATENT" will be sent on application, for a 3 cent stamp.

FOWLER AND WELLS,
308 Broadway, New York.

EQUAL TO ANY IN THE WORLD!!!

MAY BE PROCURED

At from $8 to $12 per Acre,

Near Markets, Schools, Railroads, Churches, and all the blessings of Civilization.

1,200,000 Acres, in Farms of 40, 80, 120, 160 Acres and upward, in ILLINOIS, the Garden State of America.

The Illinois Central Railroad Company offer, ON LONG CREDIT, the beautiful and fertile PRAIRIE LANDS lying along the whole line of their Railroad, 700 MILES IN LENGTH, upon the most Favorable Terms for enabling Farmers, Manufacturers, Mechanics, and Working-Men to make for themselves and their families a competency, and a HOME they can call THEIR OWN, as will appear from the following statements:

Illinois is about equal in extent to England, with a population of 1,722,666, and a soil capable of supporting 20,000,000. No State in the Valley of the Mississippi offers so great an inducement to the settler as the State of Illinois. There is no part of the world where all the conditions of climate and soil so admirably combine to produce those two great staples, CORN and WHEAT.

Climate.—Nowhere can the industrious farmer secure such immediate results from his labor as on these deep, rich, loamy soils, cultivated with so much ease. The climate, from the extreme southern part of the State to the Terre Haute, Alton and St. Louis Railroad, a distance of nearly 200 miles, is well adapted to winter.

Wheat, Corn, Cotton, Tobacco.—Peaches, Pears, Tomatoes, and every variety of fruit and vegetables, are grown in great abundance, from which Chicago and other Northern markets are furnished from four to six weeks earlier than their immediate vicinity. Between the Terre Haute, Alton and St. Louis Railway and the Kankakee and Illinois Rivers (a distance of 115 miles on the Branch and 156 miles on the Main Trunk) lies the great Corn and Stock raising portion of the State.

The ordinary yield of Corn is from 50 to 80 bushels per acre. Cattle, Horses, Mules, Sheep, and Hogs are raised here at a small cost, and yield large profits. It is believed that no section of country presents greater inducements for Dairy Farming than the Prairies of Illinois, a branch of farming to which but little attention has been paid, and which must yield sure profitable results. Between the Kankakee and Illinois Rivers, and Chicago and Dunleith (a distance of 56 miles on the Branch and 147 miles by the Main Trunk), Timothy Hay, Spring Wheat, Corn, etc., are produced in great abundance.

Agricultural Products.—The Agricultural products of Illinois are greater than those of any other State. The Wheat crop of 1861 was estimated at 25,000,000 bushels, while the Corn crop yields not less than 140,000,000 bushels, besides the crop of Oats, Barley, Rye, Buckwheat, Potatoes, Sweet Potatoes, Pumpkins, Squashes, Flax, Hemp, Peas, Clover, Cabbage, Beets, Tobacco, Sorghum, Grapes, Peaches, Apples, etc., which go to swell the vast aggregate of production in this fertile region. Over 4,000,000 tons of produce were sent out of the State of Illinois during the past year.

Stock Raising.—In Central and Southern Illinois uncommon advantages are presented for the extension of Stock raising. All kinds of Cattle, Horses, Mules, Sheep, Hogs, etc., of the best breeds, yield handsome profits; large fortunes have already been made, and the field is open for others to enter with the fairest prospects of like results. DAIRY FARMING also presents its inducements to many.

Cultivation of Cotton.—*The experiments in Cotton culture are of very great promise. Commencing in latitude 39 deg. 30 min. (see Matton on the Branch, and Assumption on the Main Line), the Company owns thousands of acres well adapted to the perfection of this fiber. A settler having a family of young children can turn their youthful labor to a most profitable account in the growth and perfection of this plant.*

The Illinois Central Railroad traverses the whole length of the State, from the banks of the Mississippi and Lake Michigan to the Ohio. As its name imports, the Railroad runs through the center of the State, and on either side of the road, along its whole length, lie the lands offered for sale.

Cities, Towns, Markets, Depots.—There are ninety-eight Depôts on the Company's Railway, giving about one every seven miles. Cities, Towns, and Villages are situated at convenient distances throughout the whole route, where every desirable commodity may be found as readily as in the oldest cities of the Union, and where buyers are to be met for all kinds of farm produce.

Education.—Mechanics and workingmen will find the free school system encouraged by the State, and endowed with a large revenue for the support of the schools. Children can live in sight of the school, the college, the church, and grow up with the prosperity of the leading State of the Great Western Empire.

Prices and Terms of Payment—on Long Credit.

80 acres at $10 per acre, with interest at 6 per cent. annually on the following terms:

Cash payment	$48 00
Payment in one year	48 00
" in two years	48 00
" in three years	48 00
" in four years	236 00
" in five years	224 00
" in six years	212 00
" in seven years	200 00

40 acres at $10 per acre:

Cash payment	$24 00
Payment in one year	24 00
" in two years	24 00
" in three years	24 00
" in four years	118 00
" in five years	112 00
" in six years	106 00
" in seven years	100 00

Address **Land Commissioner,** *Illinois Central Railroad, Chicago, Ill.*

Miscellaneous.

STONEWALL JACKSON.

HIS PERSONAL APPEARANCE.

We are having a portrait engraved of this remarkable man, who was wounded at the battle of Chancellorsville, Va.—since dead—and propose to give it, together with his character, in the next number of this JOURNAL. At present, we have space only for a paragraph, to show the general "make-up" of the man, whose name will be inscribed on the pages of the remotest history.

"Imagine a man about five feet ten inches high, rather thick set, full chest, broad, stalwart shoulders, and, indeed, the whole physique indicating what is commonly called a well-made man. He is the picture of health, though there is no redundancy of flesh. His face is slightly bronzed from the constant exposure of his campaigns. His appearance at first impresses you with the idea of great powers of endurance. The expression of his face adds to rather than diminishes the general effect. There you see self-command, perseverance, and indomitable will, without the least admixture of vanity. His forehead is broad and prominent; eyes expressing a singular union of mildness, energy, and concentration; cheek and nose both long and well formed. His dress is a common gray suit of faded cassimere, the coat slightly braided on the sleeve, just enough to be perceptible, the collar displaying the rank of a major general.

"He often walks with his head somewhat on one side, and his eyes fixed upon the ground, imparting to his whole appearance that abstracted quality which young ladies describe as 'absent-minded.' A lady who had known him long and well has told me that she never saw him on horseback without laughing—short stirrups, knees cramped up, heels stuck out behind, and chin on his breast—a most unmilitary phenomenon. In society he is quiet, but cheerful; not loquacious, but intelligent and shrewd; in religion a strict Presbyterian, and extremely strict in his church observances."

THE RIGHT WAY.—Our Irish fellow-citizens have finally hit on the right principle in bestowing their charities, namely, instead of sending their money to Ireland to support their relatives in idleness and pauperism—to which the rule of the rich and opulent have reduced them, and from which they have no hope of escape, save by emigration—they now remit prepaid passage tickets to bring them to America. This is the true plan of rendering permanent relief. Here, all may have work enough to do, at liberal wages, with the best of prospects for the future. And so it would be with the willing workers of Lancashire. Let them come to America, where land is cheap and all the means for support plentiful. England, Ireland, and Scotland are over-peopled, while we have land enough—yet untouched by the hand of the husbandman, to give farms to millions—but those people need no urging to come here. All they want is simply the means with which to pay their passage to our shores. How can this want be provided?

THE TEA-POT VERSUS BOOKS.—"I. S." writing from Derby, England, says, eighty millions of pounds of tea are annually consumed in Great Britain! What a sum! How many valuable libraries would the cost of that quantity of tea stock! And is the library or tea-pot most beneficial to the public? [We leave it for Brother Jonathan to answer Brother John. Personally, "we" of the PHRENOLOGICAL JOURNAL vote for the books.]

WHERE TO FIND A WIFE.—DISPROPORTION OF SEXES.—The great excess of males in new Territories illustrates the influence of emigration in effecting a disparity in the sexes. The males of California outnumber the females near sixty-seven thousand, or about one-fifth of the population. In Illinois the excess of males amounts to about ninety-two thousand, or one twelfth of the entire population. In Massachusetts the females outnumber the males some thirty-seven thousand six hundred. Connecticut, seven thousand. Michigan shows near forty thousand excess of males; Texas, thirty-six thousand; Wisconsin, forty-three thousand. In Colorado the males are as twenty to one female. In Utah the numbers are nearly equal; and while in New York there is a small preponderance of the females, the males are most numerous in Pennsylvania.

[If Western men would find intelligent ladies, such as are capable of "teaching school," as well as making first-rate wives and mothers, they may find them "Down East," *i. e.*, in New England. Here, girls are taught to "do something" besides standing before a mirror; and they are the *cream* of womankind. But if the men do not go for the ladies, why may not the ladies go West—not to get husbands, of course not—but to get pleasant and profitable employment? We do not see why there may not be female emigration societies, and thus bring about a more equal distribution of the sexes. Ladies, take this matter into your own hands. Go West. You will be received with open arms by a big-hearted and most hospitable people.]

MOWERS AND REAPERS.—Let the horses do the work; human ingenuity will contrive to make the mind save the muscle. And never before was there greater necessity than now. The men are on the battle-field, and crops must be secured. By the aid of cultivators, mowers, and reapers the work may be well and cheaply done by horse-power, directed by a boy. Why can not these machines be made to do *all* the mowing and reaping? Let them be got up simply, cheaply, and quickly. They would soon become universal. Farmers, look to your interests.

SKILLFUL SURGICAL OPERATION.—The *Tribune* reports an operation of recto-vesical lithotomy performed for the first time successfully in New York, on Monday, by Edward H. Dixon, M.D., in the presence of a number of our surgeons and physicians. The patient was Mr. George Low, of Muscatine, Iowa. He had been afflicted with the disease for thirty-seven years. Peculiar interest attached to this case, from the fact that the stone, from its long presence in the base of the bladder, had sunk downward, and formed for itself a sack, and protruded into the bowel, making, as it were, two separate bladders. No instrument could be introduced to guide the knife, in the usual way of operating, from the fact that the large size of the stone made pressure upon the urethra. All had to depend upon the tact of the surgeon, and his knowledge of the anatomy of the parts. In less than a minute the stone lay on the table, undergoing the surgical scrutiny of the gentlemen who were present. It will gratify Mr. Low's friends to know that his condition is very comfortable, and there is no doubt of his complete recovery, and surgeons will find a new resource for a complicated disease in this rare operation.

BEAUTY WITHOUT BRAINS.—Little Alice was talking to her dolly, and said to her, looking lovingly into her face, "You is bootiful, dolly, very bootiful; but you is dot no bains!"—*New York Observer.*

We rejoice that our slow, steady, and venerable neighbor is taking lessons in Physiology. If we are not mistaken, these are "new views" to that journal, and we regard it as in a hopeful state. How soon will the *Observer* accept Phrenology? Seriously, this journal is really becoming a first-class weekly, and has something good for all.

DELICIOUS PEARS.—Sure as the seasons come and go, so sure are we of a basket of "the finest fruit that grows," from the well-fed trees of our generous and enterprising friend MORRIS BAISLEY, of Westchester, N. Y.

How he got up such magnificent pears—why his *Seckels* were more than *thrice* the size of three sold in this market—and how he got so much saccharine into them—was a puzzle to us, not solved till we visited his grounds. Then the mystery was explained, and, as Mr. Baisley has not taken out a patent for his discovery, we shall tell how he does it. This is it: *he feeds his trees.* Instead of cropping the ground, he enriches it by suitable fertilizers, then beautifies it by planting beautiful flowers, which, being kept clean and free from weeds, give a charming aspect to the view. Farmers who mow, reap, and impoverish their orchards, need not look for fine fruit. Of the later pears recently sent us by this zealous fruit-grower, we name the Lawrence, which to our taste is surpassed by no other; the Duchesse d'Angouleme, which were "big" with goodness, and fit for the palate of kings, queens, emperors, or American citizens! Yes, verily it is just such fruit as may be recommended for honest men, women, and children. With plenty of such fruit on the table *at every meal*—and why not? it may be grown as cheaply as poor trash, aye, or as apples—and far cheaper than beef, pork, or mutton. Put ripe, luscious fruits, served up as it may be—raw and cooked, warm and cold, in many styles—and our word for it, the children would not hanker after scrofulous pork nor diseasing condiments. We are not now advocating Vegetarianism, we are simply singing praises to our God-given fruits. Consider the condition of the poor soldier and the sailor cut down by the scurvy, when if he could but have one good apple or pear a day, green or dried, he would escape.

MORAL: Grow fruits, plant trees, and take care of them, and thus be a benefactor to your race.

THE SOCIAL CIRCLE.

[It is in the social circle at home that we hear kindly words and see smiling faces, which make us forget the toils of life. Let us strive by every means to make this the garden of the soul in which our spirits shall be softened, chastened, and ripened for the life to come.]

Though our way is dark and dreary,
And we toil from day to day,
While the heart is sad and weary,
At our home there shines a ray.
Kindly words and smiling faces,
Gentle voices as of yore,
Loving kisses and embraces
Ever wait us at the door.

Here we turn when all forsake us,
Here we never look in vain
For the soothing tones that wake us
Back to joy and peace again
Oh, a sweet repose doth linger
In the sunshine of the place;
Time, with his remorseless finger,
Vainly striveth to erase!

Though we err, yet in our sadness
Here's a shelter from the storm,
Just as in our days of gladness
Here are hearts as true and warm.
Kindly words and smiling faces,
Gentle voices as of yore,
Loving kisses and embraces
Ever wait us at the door.

OUR NEW PROSPECTUS.

"The Human Face Divine"—a New System of Physiognomy, Eyes, Ears, Nose, Lips, Mouth, Head, Hair, Eyebrows, Hands, Feet, Skin, Complexion, with all "Signs of Character, and How to Read Them," to be given in

The Phrenological Journal

AND LIFE ILLUSTRATED for 1863, which will contain everything new and useful, with illustrations, relating to

Ethnology, the Natural History of Man, now attracting much attention; and we shall record in this JOURNAL what may be developed concerning different nations, races, and tribes of men.

Physiology, in which the functions of the body, such as Heart, Lungs, Stomach, Bones, Muscles, including the Nervous System—their "Uses and Abuses"—will be amply illustrated and described in a popular manner.

Phrenology, in its application to all the various interests of the Human Race, including the Temperaments, and Man's Intellectual, Social, and Moral Nature, and How to Improve it.

Physiognomy, with the "Signs of Character, and How to Read Them," on scientific principles, with numerous portraits of remarkable persons.

Psychology, or the "Science of the Soul," including Man's Spiritual Nature, and his relations not only to this life, but to the life to come, elucidated and explained on principles in perfect harmony with Revelation and Christianity.

☞ A New Volume, the Thirty-eighth, commences July, 1863, published on the first of each month, in a beautiful quarto form, suitable for binding, at $1 50 a year. Clubs of five, $1 25 each; of ten or more will be supplied at $1 each. Sample numbers, 15 cents. Please address

FOWLER AND WELLS,
308 Broadway, New York.